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THE CINCINNATI

LANCET AND OBSERVER.

J. C. CULBERTSON, M.D., Editor.

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J. C. CULBERTSON, M. D., Editor.

VOL. XVII.—JANUARY, 1874—No. 1.

Original Communications.

Art. I.—Some Facts in the History of Asiatic Cholera.

By WM. CLENDENIN, M. D., Professor of Anatomy in Miami Med. College.

We have sufficient evidence of the prevalence of cholera in India at a very early period, but the disease was not studied or fully described until after the English government occupied that country. A Portuguese, Gaspar Correa, is the first writer who gives a reliable account of the cholera in Hindostan. He states that during the spring of 1503, 20,000 men had died of cholera, in the army of the Zamoryn, sovereign of Calicut. The same writer states that in the spring of 1543 he met with cholera in an epidemic form at Goa.

The first time the cholera seems to have excited general alarm was in the year 1764, when it swept through a part of India and hurried to the grave 30,000 natives, and a considerable number of Europeans, at the time resident in that country. Terrible as was this epidemic, it was quiet and unimportant in its work compared with epidemics of a later period. In Bombay alone, in 1820, so fatal were its devastations, that one hundred and fifty thousand persons became its victims.

In the year 1817, the cholera first extended beyond the borders of India, and it therefore seems proper to date the history of the disease from this epidemic. The disease which had always before that period remained circumscribed in the provinces of India, where it had appeared, as an epidemic, and then died out at the place of its origin, now took on an invading character It passed from India by all the outlets which gave passage to human currents. It extended eastward during that and the two succeeding years to China, and the Molucca and Spice Islands; and after a slow, but uninterrupted march westward, reached England and the United States in about fifteen years.

The same space was traversed by the epidemic of 1849, in five years and a half, and that of 1866 in about six months.

The great epidemic of 1817 commenced in August (according to the Bombay reports), in Zila-Jepore, a city situated upon the river Ganges, about one hundred miles northeast of Calcutta, and was at first attributed to the use of rank fish and spoiled rice. It, however, spread rapidly from village to village, and from district to district, including some 196,000 square miles. and McNamara remarks that hardly a town or village had escaped its deadly influence. This epidemic reached Bombay in September, 1818, where it several times disappeared and again reappeared during the three succeeding years; and finally making its appearance at Muscat, at the southern extremity of the Persian Gulf, in June, 1821. During the years 1821 and 1822, the pestilence visited almost every city and town throughout Persia. In 1823 it invaded the country bordering on the Caspian Sea, and extending north as far as the city of Astrakan, threatening Russia; and during the summer of this year it prevailed at Antioch and Aleppo on the Mediterranean sea. The disease had previously reached Astrakan by way of the Persian Gulf.

The epidemic of 1827 reached Orenburg, in Russia, in August, 1829, whence it seemed to have been carried, according to McNamara, by caravans, and troops, from Hindostan across the Himalaya Mountains, by way of Attock, Bolk, Bokhara, and other cities. The cold of the succeeding winter appeared to arrest its further progress in Russia; but in the summer of the succeeding year, it again appeared in Persia and along the Georgian frontier, and by the middle of July had again reached Astrakan, at the mouth of the Volga river, up which it extended, finally reaching Moscow in September. The cold of winter again apparently checked its further advance westward, so that it did not reach Warsaw until April of the ensuing spring (1831). From Warsaw it spread rapidly to other points along the Baltic, and invaded St. Petersburg in June. From Russia the disease spread throughout Germany, attacking successively the principal cities and ports, extending thence to England, and appearing in both London and New Castle at about the same time. Thence it was conveyed to Ireland, and in the spring of 1832, from Ireland to Quebec, Canada, where it was brought by the brig "James Carrick" from Dublin, with emigrant passengers. The brig Carrick landed at Quebec on the 11th day of June, 1832; and on the 18th of that month, four hundred and thirty-seven deaths from cholera were reported in Montreal. On the 22d day of June, an act was passed by the legislature of New York establishing a quarantine between that state and the provinces of Canada. But this precaution was not inaugurated in time to accomplish the object in view, as the cholera appeared in New York city on the 21st day of June; in Philadelphia on the 4th of July, and in Baltimore in the course of the same month.

From Quebec and Montreal the disease passed along the Champlain and Erie canals, in canal-boats, and on the lakes on steamboats. It broke out among the soldiers of General Scott's command, while on steamboats, on the lakes between Buffalo and Chicago (during the "Black-hawk war"). It was carried by Scott's soldiers to the upper Mississippi river, and to St. Louis by the steamboat "Columbus." From St. Louis it was carried down the Mississippi river, and up the Ohio to Louisville and Cincinnati.

The first cases of cholera at Cincinnati occurred on the 9th day of October, 1832, on the steamboats "William Parsons" and the "Sylph."

A Board of Health was organized in Cincinnati on the 26th day of June, 1832, of which Drs. John Eberle and James M. Stoughton were the medical members. On the 13th day of July, the Board of Health of Cincinnati issued the following official announcement:

BOARD OF HEALTH,
CINCINNATI, *July* 13, 1832.

The Board of Health announces to their fellow-citizens that they have received intelligence that the cholera has reached Cleveland in our state, as appears from the following report of the Board of Health of that place:

[From the Cleveland Advertiser—Extra.]

BOARD OF HEALTH,
CLEVELAND, *July* 10, 9 o'clock A. M.

The Board of Health have the unpleasant duty to report, that the steamboat Henry Clay arrived last evening in our piers, from Detroit, with three of her men sick, and, as the board have no doubt, with the cholera. She had been up with soldiers among whom the disease broke out, and of whom eleven or twelve died, with two of the boat's crew, etc., etc.

(Signed,) J. MILLS,
E. W. COWLEY.
C. DENNISON,
and other members of the Board.

At a meeting of the Board of Health, held October 10, 1832, the president announced that "four fatal cases of spasmodic cholera have occurred in this city." At this meeting several buildings were fixed upon for use as "Cholera Hospitals," one of which was immediately put in readiness for the reception of patients, and Dr. G. Bailey was appointed resident physician therein. The board held daily sessions and instituted active measures for placing the city in order for the prevention, or at least the lessening, of the ravages of cholera.

The deaths from cholera reported to the Board of Health office, in Cincinnati, during the ensuing days of the month of October were as follows:

Oct. 11	...14 deaths.	Oct. 23	...19 deaths.
" 12	...27 "	" 24	...16 "
" 13	...21 "	" 25	...17 "
" 14	...24 "	" 26	...13 "
" 15	...25 "	" 27	...13 "
" 16	...16 "	" 28	... 9 "
" 17	...16 "	" 29	... 9 "
" 18	...19 "	" 30	... 7 "
" 19	...40 "	" 31	... 7 "
" 20	...22 "		
" 21	...24 "	Total	...349
" 22	...21 "		

During the first seven days of November there was but one death each day from cholera.

On the 7th of November, the board announced "to their fellow-citizens," that "they consider the cholera as no longer existing in this city as an epidemic."

Art. II.—Traumatic Myelitis.

By HENRY MANFRED, M. D., late Surgeon 22d Ky. Inf.

Upon the afternoon of August 6, 1862, at Tazewell, Tennessee, while guarding the Knoxville road as an advanced outpost, James Loper, Co. E 22d Kentucky Infantry, a gallant young Kentuckian of eighteen years, was shot in a skirmish with a Confederate trooper, as he galloped rapidly past him. Loper fired back at his antagonist, while in the act of falling, and missed his aim, while the ball of his adversary took effect in his neck. I was with Loper very soon after the accident, and examined the wound.

The ball had entered the cervical region near the posterior border of the upper third of sterno-cleido-mastoid muscle; the orifice, where the ball had entered, was a small one, but probably afforded no indication of the size of the ball, which had buried itself deeply in the tissues and could not be found.

Yet from the character of the external injury, I believe that the wound in question was inflicted by a round ball rather than by a minie, for a minie usually lacerates and destroys opposing tissues in a frightful manner. While carefully tracing out with a probe the direction the ball had taken, which was ascertained to be downwards, backwards, and inwards, I struck the spinous process of one of the cervical vertebræ, probably the fifth. Whether the process was splintered by the missile or had merely suffered a contusion, it was difficult to determine. There was certainly no perceptible crepitation; and contusion alone, *without fraction* of the *vertebræ*, would be sufficient to occasion the paraplegia of the lower extremities, as well as the retention of urine that immediately succeeded the injury, but neither the tongue nor the face were drawn on one side, nor was the speech or breathing affected. He was taken ten or twelve miles to the regimental hopsital in the ambulance.

On the following day priapism supervened and lasted two weeks. His breathing still remained unembarrassed, though partial paralysis of the sensitive nerves was quite perceptible. This condition of the breathing led me to the conclusion, which the location of the wound tended further to confirm, that the injury to the spinal cord must be below the origin of the phrenic nerve; for when it is otherwise, the action of the diaphragm and of all the breathing muscles of the thorax are so seriously impaired that very speedy, if not immediate dissolution may be expected.

Injuries, even slight ones, to the cervical vertebræ are always grave, but the danger is less so to the dorsal, and least of all to the lumbar region and sacrum. Excepting the lesions above mentioned, our patient enjoyed robust health. He had no pain; his appetite was excellent; circulation good; spirits buoyant; the external wound seemed trifling, and as he expressed it, "I feel bully." He had no doubt whatever but that he would soon be well. However, upon the second day after the injury, I came to the conclusion that the injury must necessarily *prove fatal in its final results*, though he might possibly live several weeks. By some means this opinion leaked out, and was finally communicated to the patient himself, who laughed the idea to scorn: he felt so hearty and so well that it could not possibly be true. Even his comrades considered the doctor mistaken. Do not cases like this call forth our deepest sympathies? The patient is not aware of his real condition. The *spinal cord* is *slowly disorganizing*, but has not telegraphed its feelings (if I may be allowed the expression) to the *great sympathetic nerves of organic life* which preside over secretion, assimilation, and nutrition; and although our patient has palsy of the lower extremities, with retention of urine, he can not believe that he is in any danger, or that he will not soon be well. But little by little the bandage is slowly removed from his eyes. He observes his appetite is not quite so good; his spirits are not quite so buoyant; he is getting perceptibly thinner; yet he suffers no pain, but tries to keep up his spirits and throw away, with a courageous effort, the feelings which crowd upon and oppress him. But slowly and surely the deadening effect of approaching dissolution gradually steals over him, His capillary circulation becomes sluggish; his complexion, before so bright and clear, assumes a dusky, sodden appearance; his eye loses its brilliancy; the urine becomes albuminous, bedsores commence forming, followed by extensive sloughing of the nates and gastroenemic muscles. At the end of forty days he succumbed to his disease, expiring in great pain.

We see in this remarkable case admirably portrayed the prominent symptoms, usually observed *in gunshot injury of the spine, accompanied with lesion of the spinal cord. First.* We have the physical evidence afforded by the use of the probe. *Second.* The loss of voluntary motion of the lower extremities and retention of urine, all these results immediately following the injury. *Third.* Priapism; and lastly, the albuminous urine and frightful sloughing, the latter contrasting strangely with the trivial character of the external wound. These consecutive symptoms designate in clear and unmistakable characters the real nature of the injury sustained. They indicate the general characteristics common to this class of diseases, and prefigure its final termination.

In retention of urine following traumatic injury, the surgeon can not be too gentle in the use of the catheter; for the bladder is so liable to become irritated from the loss of nervous communication, as well as from the frequent use of the instrument: moreover, the lesion occasions such insensibility that the patient does not usually suffer from the rough handling of the instrument. Serious injury is often sustained before the surgeon's attention is drawn to the subject.

The treatment of these cases by blood-letting, blisters, peton, etc., though strongly recommended by some writers to subdue existing inflammation, unless confined to a few leeches, can hardly, I think, under any circumstances, be desirable. If local pain and inflammation run high, as is often the case at the beginning, the sedative effect of dry cold, as recommended by Professor Esmarch, in his admirable paper upon "*The Uses of Cold in Surgery*," will usually accomplish all to be desired without the drawbacks of depletion; for the assimilating powers of the system are so reduced from the nervous shock that the patient can not afford to lose any blood. The tendency to sloughing and gangrene develops itself so early in these cases that it is often of great importance to foresee and guard against their occurrence from the very commencement.

A water bed for the patient to rest upon, will afford him infinite comfort, and lessen immensely his liability to bedsores, by distributing the pressure equally over the entire body Air-ring cushions are likewise serviceable in removing local pressure from one part o the person to another.

The medicines most useful in these cases are iron, strychnia, belladonna, hyoscyamus, and neutral salts, to improve the circulation, to tone up the nervous system, to relieve pain or obviate constipation, to do any or all of these things, as the exigencies of each case may require. Add to these remedies a full nourishing diet, with abundance of *cold fresh air*—not the warm enervating atmosphere of a stove or furnace-heated room, filled perhaps with the exhalations of other patients, but pure *cold air*, abounding with oxygen. The animal heat of the patient should be kept up by blankets—warm applications to the feet, if necessary, but not by heating the air which he breathes. Above all, we should not be too anxious to do something for our patient. Time is an important element in his cure: it is well to hasten slowly.

Twenty-two cases of traumatic injury to the spine occurred in the English army during the Crimean war, all of which proved fatal—some from asphyxia, others from tetanus, pyæmia, and general typhoid symptoms.

Trephining the spine in such cases has been so unsuccessful that it has very properly become obsolete. I wanted very much to have made a post-mortem examination in this case, had not the stern military necessities of the hour forbid it. The command for an immediate evacuation of our quarters had been issued, and we had to seek immediate burial for our patient. This prevented the possibility of a post mortem that might have proved instructive by the information it afforded of the pathological condition of the vertebræ and spinal cord, which would probably have explained to some extent the relationship existing between the morbid condition of the cord and the symptoms so distressing during life.

Art. III.—Miscellaneous Cases and Observations.

By S. C. AYRES, M. D., Cincinnati, Ohio.

It is sometimes difficult from the history of a case to determine whether a foreign body is lodged in the eye or not. This is especially the case where an accident of that kind is followed by very slight inflammation. Where severe inflammation of the iris and ciliary body, with the accompanying symptoms, follow the reception of an injury, the probabilities are in favor of a foreign body being lodged in the eye. The smaller the body and the greater its velocity, the less pain it causes when it penetrates.

It may penetrate the sclerotic and lodge in the vitreous, and there remain for months or years without causing the patient any pain. A foreign substance, imbedded in the iris or ciliary body, is likely to excite inflammation very quickly. This is generally the case in similar accidents to the lens. The capsule is ruptured, and the aqueous coming in contact with the lens substance, causes it to swell. While this is the rule, there are exceptions to it, as the following case will show.

CASE I. *A foreign body imbedded in the lens for one year.*—W. W. H., æt. 9, presented himself one year ago for examination on account of blindness of the left eye. The eye had never been painful, and vision in it had been good until lately. The lens was found to be entirely opaque, but perception of light was good and the tension of the eye normal. He declared that he had no recollection of the eye ever having been injured. Present condition, November, 1872: Eye extremely painful; ciliary region intensely injected; lens evidently swollen, and iris severely inflamed. The condition of the eye confirmed the suspicions of a year ago, and Dr. Williams, without any delay, made a linear incision, and extracted the lens. It came out without difficulty, and with it a small piece of metal which had been imbedded there for a year. The inflammation rapidly subsided, and the boy preserved a moderate amount of vision in the eye.

An examination of the eye with oblique illumination showed a very delicate linear cicatrix in the lower and outer quadrant of the cornea near its margin. It was so slight that it would easily escape observation unless one suspected the true cause of the cataract.

It is seldom that foreign bodies penetrating the cornea lodge upon the iris. In a very large proportion of cases they pass through the iris and injure the lens, causing traumatic cataract. Occasionally a foreign substance lodges on the iris without injuring the lens or its capsule. Such an accident is very likely to be followed by severe iritis and loss of the eye, unless prompt measures are adopted for its relief.

CASE II. *Foreign body on the iris; iritis; iridectomy.*—J. M., æt. 22, while striking a chisel with a hammer, felt something enter the left eye. It caused but little pain at the time, and the sight was not affected. The next day (February 12, 1872) his eye was slightly irritated, and he applied to have, as he supposed, a foreign body removed from the cornea. Upon examination, a bright chip of metal was seen lodged upon the upper and outer quadrant of iris, very near its pupillary margin. The iris was slightly discolored from inflammation, but he suffered no pain. It was deemed advisable to wait until the next day, in order that the foreign body might be held in its place by exudation, which would be sure to form around it. In attempting an iridectomy now, it might easily become detached from the iris and fall into the anterior chamber. February 13th, iris considerably inflamed and discolored; aqueous slightly turbid, and the edges of the chip of metal are covered by exudation. I made an iridectomy through the cornea, corresponding with the injured portion of the iris. The iris fortunately prolapsed through the corneal incision, and I had no trouble in drawing it out safely with the foreign body on its surface. Atropine was now used energetically, and in a few days the iritis disappeared. The vision was only slightly affected, as the iridectomy was partly covered by the upper lid. This injury would in all probability have been followed by suppurative inflammation of the iris and loss of the eye, if the foreign body had not been promptly removed.

CASE III. *Beard of wheat in upper cul-de-sac six weeks; fungous growth; removal.*—September 8, 1873, A. V. gave the following history: The left eye suddenly became painful about six weeks ago, while hauling a load of wheat. He applied to his family physician for relief, who examined the eye and everted the lids, but discovered no foreign body. The injury was followed by severe inflammatory symptoms, which, however, subsided in a few days under treatment. He had no further trouble in his eye until a few days ago, when it became acutely inflamed. Upon everting the upper lid, a fleshy mass is seen extending downward toward the cornea. It is broad and flat, and apparently originates in the upper cul-de-sac. Upon exposing the conjunctiva to its full extent, by pressing upon the outside of the lid behind the tarsus with a probe, I found lying there a piece of wheat beard three-quarters of an inch long. From the point where one end of it rested, originated the fungous mass, which was 4‴ long and 2‴ broad. It had gradually developed, and had become flattened by the pressure of the upper lid. I snipped it off close to the conjunctiva. The eye recovered in a few days.

CASE IV. *Grain of wheat in upper cul-de-sac six months.*—W. H. (December, 1872) has been suffering more or less with his left eye for the past six months. At the present time he suffers pain almost constantly. There is great photophobia, and the eye is tender to the slightest pressure. The conjunctiva is very much swollen, and there is a pterygium at the inner canthus, which is very acutely inflamed. He has been treated for some time past for granulations, and solutions of the various astringents have been used, all of which have only aggravated the trouble. Upon completely exposing the upper cul-de-sac, Dr. Williams discovered in the folds of the swollen conjunctiva a grain of wheat, which had been imbedded there for about six months. The removal of the foreign body was sufficient to arrest the inflammation, and an anodyne treatment soon restored the eye to its former condition. The pterygium was afterward successfully removed.

The last two cases illustrate very well how carelessly examinations are sometimes made, and show how easily large bodies may escape notice.

Art. IV.—Treatment of Syphilitic Iritis—Is Salivation ever Desirable?

By A. D. WILLIAMS, M. D., St. Louis, Mo.

The diagnosis having been settled, the best treatment becomes an important matter in syphilitic iritis, as in all other diseases.

The indications are briefly: 1. To preserve the vision; 2. To relieve the pain; and 3. To *cure*, as far as possible, the disease, of which the iritis is only a symptom—an evidence.

To preserve the vision it is necessary to prevent the obstruction of the pupil by exudation of lymph from the inflamed iris. This exudation endangers the sight seriously in all cases of iritis. It forms not only a false membrane through the pupil, but it causes adhesions to form between the iris and the lens. If the false membrane and perhaps adhesions have already formed, then the absorption of the membrane and the breaking up of the adhesions must be effected as far as possible. These several most important indications are met, very fortunately and, I may say, happily, by the employment of a single remedy, namely, the local use of the sulphate of atropine in solution (about 4 grs. to ounce of water). Everybody knows that atropine dilates the pupil. In doing that it prevents adhesions, or breaks them up, as far as possible, if they have already formed, and also checks the exudative process. The absorption of the lymph is very little influenced by remedies; that must be left to the powers of nature.

But besides all this, atropine is a most powerful anodyne, and consequently it relieves very promptly the usually severe pain in iritis, and thus it fills another very important indication in its treatment.

But again, atropine, in causing the pupil to dilate, produces a compression of the iris into a smaller space, and thus a quantity of blood is pressed (squeezed) out of the inflamed iris tissue Consequently, it exerts, in this *physical* way, an antiphlogistic influence upon the iris, and also by its anodyne property. But I barely mention here the several important actions of this great remedy in the treatment of iritis. I do not suppose that there is another single remedy in the whole range of materia medica that meets so many important indications, as does atropine in the treatment of inflammation of the iris from whatever cause.

The solution is to be dropped into the eye three to five times during the day, and if the pain continues, two or three times during the night. It may be used, with safety, every half-hour for a few times when the suffering is very severe. The only inconvenience its frequent use causes, in grown persons, is an unpleasant dryness of the throat—a feeling of thirst that water does not satisfy.

In very severe and stubborn cases, four to six leeches, applied to the corresponding side of the nose near the inner canthus, sometimes do very good service in checking the inflammation, though it is not often necessary to order them.

If the pain can not be controlled by the energetic use of atropine, and possibly leeches, then anodynes should be given internally, or morphine be cautiously injected hypodermically. The patient in the meantime should avoid all violent exercise, and remain quiet in or about the house. A moderate amount of walking is not injurious.

Dieting is not advisable; in fact, it is better that he should eat enough to prevent hunger. All stimulants must be positively forbidden, except when the condition of the general health requires stimulation. In addition to the above treatment, *hop poultices* may be applied over the eye in severe cases. Patients often speak of them as being very grateful to the feeling, and decidedly soothing to the pain.

Such is a very brief statement of the necessary local treatment of not only syphilitic, but all forms of iritis. Passing from the local to the general treatment, I refer next to the necessary (essential) internal treatment. I have already intimated, and as every one very well knows, that the iritis is only a symptom—an evidence—of a prevailing constitutional disease, which of course must be treated in order to remove the direct cause of the inflammation of the iris. Very poor success would crown the efforts of any one who should rely alone upon the local treatment; both are equally important: the one to preserve or rescue the vision from danger; the other to *cure*, as far as possible, the original cause of the iritic inflammation.

The internal medication must be, in general terms, *antisyphilitic.* Syphilitic iritis is one of the evidences of secondary syphilis; the system, therefore, is already contaminated (poisoned); consequently the great object is to eradicate the poison.

To be very brief, I rely mainly upon one combination, one prescription, for internal treatment. It is now pretty generally conceded that mercury, in some form, is necessary; but iodine, in some form, is perhaps equally as necessary. Iodide of potassium is a convenient form for the internal administration of iodine. I therefore combine the two. I prescribe bichloride of mercury (from a thirtieth to fifteenth of a grain), and iodide of potassium (5 to 10 grs.) in solution in any of the aromatic waters, pure water, simple syrup, or syrup of sarsaparilla. This quantity is to be taken three times a day, and best after meals on account of its nauseating effect. It does not nauseate a full stomach as much as an empty one. This prescription I continue right along till all traces of syphilis disappear from the body. The time required ranges from three weeks to three months. I rarely find it necessary to use anything else. Of course the physician must always consider the peculiarities of his patient. If one medicine is not tolerated, then another, similar in character, must be substituted.

I select the bichloride of mercury because that form, in the necessary quantity, rarely salivates. I have given it uninterruptedly for months, and have never yet salivated a single person.

Iodide of potassium is selected because it is convenient. The other iodides would answer possibly just as well; some writers think they act even better.

The patient should eat as usual, but avoid all stimulants, if he is in good health otherwise. Some patients have to be treated in a general way in addition to the above. In all such cases, of course the physician is to be guided by general principles.

Such is a very short statement of the necessary internal treatment in syphilitic iritis. The local treatment must be continued till the eye is entirely free from all redness. The internal treatment must be persevered in till the body is free from all syphilitic evidences. It is sometimes difficult to get a patient to continue, particularly, the internal treatment sufficiently long. The physician must see to that always

Is salivation ever desirable in syphilitic iritis? To express my views on this question is the chief object I have in view in writing this communication.

Some months since, *Dr. Ricord*, of Paris, made a speech before the British Medical Association at Birmingham, on the treatment of syphilis. On account of the *high* authority of its author, that speech has gone the rounds of the medical press everywhere, as embodying his most recent notions of our present knowledge of syphilis and its treatment. *Ricord* has ceased to teach and write on this subject, which fact makes his last utterances so much the more interesting.

In the course of that speech, *Dr. Gross* asked: "Does *Dr. Ricord* believe in salivation in syphilis?" To which *Ricord* replied: "No; certainly not. Salivation is an accident following the treatment, and it must be avoided as much as possible. There is but one case in which I approve of salivation. and that is in disease of the eye—iritis. When that occurs, and salivation is brought on, the inflammation of the iris subsides."

I confess to some degree of surprise when I first read this statement from such high authority, and I must express my disbelief (in a modest way) in even the *desirableness*, much less *necessity*, of salivation in the treatment of specific iritis. Why salivate a man because he has iritis? Salivation is no *cure* for iritis. Let no one think, as *Ricord* implies, that ptyalism is a certain cure for specific inflammation of the iris. Nothing is farther from the truth. I have never salivated a single individual and always take extra pains to avoid it. I have seen persons sharply salivated in the hands of others, and, instead of being a benefit, the mercurialism seemed to be a *hindrance* to the progress of the cure I always use mercury, as above stated, but never to the extent of ptyalism. The moment the slightest symptom of this occurs, the mercury should be stopped at once.

There is nothing more satisfactory, as to general results, and easier to treat, than specific iritis. Only occasionally a stubborn case is met with.

Observation proves that specific iritis does not continue indefinitely. It runs its course in comparatively a short time, and then subsides of itself; that is, the acute inflammation subsides, but its effects, the results of that inflammation, continue permanently in the form of adhesions and false membranes in the pupils. To prevent such unfortunate and incurable consequences should be the first care of the physician. Lymph, the product of the acute iritis, forms the adhesions and false membranes. This lymph in the early or fresh stage, being soluble, is absorbable, but as soon as it hardens (partly organizes), it becomes insoluble, and consequently non-absorbable.

Mercury, even to the extent of salivation, will not prevent the exudation of lymph from the surface of the iris; neither will it prevent the formation of adhesions and false membranes, nor cause them to absorb after they are formed. It will neither prevent nor cure the bad consequences of iritis so far as the vision is concerned. Why then should *Ricord* say, he is always glad to see salivation occur in all his patients who suffer from specific iritic inflammation? I am sure it would not rejoice me a bit to see it occur in one of my patients. I never want the credit (?) of producing profuse ptyalism.

Altogether, I must conclude that salivation is *never* desirable in the treatment of syphilitic iritis.

Blisters in Pneumonia.—Dr. C. J. B. Williams, the distinguished English authority, makes use of the following language in speaking of the treatment of pneumonia: "My experience has taught me to put great faith in large blisters, both in asthenic pneumonia and in bronchitis, and I am confident that I have seen many lives saved by their means. Instead of being lowering, they give a salutary excitement to the circulation, and the copious serous discharge which they produce from the skin, tends to relieve the congested lung without wasting the red blood that is so needed to sustain the functions. Small blisters tease as much as large ones, and are far inferior in the relief they afford."—*Medical Press.*

Hospital Reports.

CINCINNATI HOSPITAL—ABSTRACT FROM AN INTRODUCTORY TO THE COURSE OF CLINICAL INSTRUCTION.

By C. G. COMEGYS, M. D.

Gentlemen :—For the first time in the history of this hospital. the staff has appointed one of its members to deliver an introductory to the course of clinical instruction. The circumstances which have led to this new order of things, I shall allude to in the course of my remarks.

But now let us pause in the beginning of what we have to say, that we may honor the memory of the distinguished men who stood here fifty years ago, and laid the foundation of demonstrative medicine in this hospital. Teachers, and their pupils too, have all passed away, and no living one is found to give us a personal account of that inauguration. Other teachers and students have filled up the vacant places, and the work has never faltered—the chain has been unbroken—so that instead of the two or three founders of this school, who then carried on their work in very limited quarters, to-day the staff numbers fourteen, and the old house, by the city's munificent charity, has been replaced by one of the most vast and appropriate structures in the world. Moreover, the insane, who then occupied the narrowest and worst outer portions of the old house, have had created for them, in the superb asylum of Longview, accommodations commensurate with their melancholy condition.

Yes, the enlarged pity and charity inculcated by those pioneers in our profession upon the infant population of our city, have worked out glorious results in the magnificent hospitals which now give to Cincinnati a national and world-wide renown. Whatever are the short-comings of medical men here, however much they have differed and struggled with each other on minor points, it is an indubitable fact, that amidst all the conflicts, jealousies, and rivalries in which, as mere men, they have been engaged, in the sublime work of sympathy for the suffering sick poor, and their proper care, they have always been united. They have never ceased to supplement the efforts of the first faculty, until the great fabric has been completed.

HISTORY.—Fifty years ago, and what a scene was this! About 10,000 inhabitants only dwelt here. A dense, almost unbroken forest stretched from the river to the lakes on the north, and from the mountains to the Mississippi on the west. The people dwelt in very simple houses, or log cabins. The cereals were grown within the city limits, and the people subsisted largely on the grains and fruits, the product of their own culture. This hospital was built beside a wood on the outskirts of the town; the gate to the wood's pasture stood on our western boundary. The potter's field lay conveniently near, on the eastern side, and is now covered by the monstrous buildings of the Exposition. The canal which separates us from that locality, had not then been projected; the railroad was not a matter of thought; the city depended for its growth upon the beautiful and capacious river which washed its shores. Navigation by steam was begun, but had not yet fully secured public confidence. The roads were not macadamized; there were no mail coaches: journeys were made on horses.

Thus, shut in by the forests, with only slow communication by the river with the remote and busy world; subsisting by their own tillage of the soil, and the profits of a few simple manufactures and the gains of a limited trade, the primitive inhabitants of this great city laid the foundations of the vast manufactures, trade, and commerce which has enabled their descendants to develop a skill, thrift, and solidity that is the admiration of the world. Even while I now speak the roar of the machinery in the great Exposition is sounding in your ears.

Our state capital was a village; Indianapolis was just laid out; Louisville only a large town; St. Louis a flourishing trading post, while Chicago was not in existence. But to the south was a small but flourishing town, already distinguished for the heroic patriotism of its people. There was a seat of learning: 't was Lexington that bore the torch of science. There were the torch and the fane where youth might obtain all the acquisitions of science. And in medicine especially, a brilliant corps of teachers existed, among whom was Dudley, whose aspirations for enlarged culture had led him, as a youth, to foreign lands, where, on bloody fields and by Larrey's side, he gained that skill that made him one of the greatest surgeons of the age.

Cincinnati was as yet without any schools of higher learning. There was no lack of cultivated people; indeed, the pulpit, the bar, and medicine possessed men of large powers of mind and collegiate training, and several of them had already gained a national distinction; but there was no master mind, who, as leader, could bring into combined action all the desires and needs of a growing and highly civilized community for the establishment of an institution for instruction in arts and sciences.

DANIEL DRAKE.—In the meanwhile there was coming to manhood in the wilds of Kentucky one who may well be styled a genius. He had been nurtured amid all the deprivations, hardships, and perils of the wilderness, and his faculties had been precociously developed by all those struggles with dense forests, ferocious beasts, and more savage men that the pioneer must encounter and subdue. His young life was passed in the wild solitudes of the hill lands, and his soul loved nature. From his earliest consciousness, his senses had drunk in all her wild and beautiful forms, and kindling his natural powers of observation with all the fervor of deepest passion. Such a mind, so full of enthusiasm for knowledge in nature's arcana, could not remain in the dull and routine life of a planter. His mind was happily directed toward medicine, and he came to this city at the tender age of sixteen, and was apprenticed to the leading physician, as his office student and apothecary.

His opportunity for formal instruction in books had been very limited, but this lack of opportunity was greatly compensated by his habits, so thoroughly acquired, of observation, comparison, and meditation. After a patient and methodic service of four years, in which he had made himself familiar with all the text-books, he felt that he must go to the famous school of the East where Rush, Physic, Wistar, and Barton taught. With scanty means, he completed the long journey on horseback, and gratified the wish of his heart.

On his return with enlarged views of culture, he entered busily into practice, and rose rapidly in public estimation. Besides medicine, he investigated at large subjects in natural history and natural philosophy, also studies of the aborigines and the monuments that marked their residence in our valleys. He, besides, wrote descriptions of Cincinnati, the Miami valleys, and their prospective wealth. These writings attracted much attention, and when, ten years later, he went to the University of Pennsylvania again, to finish his studies and obtain his diploma, he was received by the faculty and the distinguished society of Philadelphia as a savan. But not only in these things had he acquired so much knowledge, but also in classical lore; for the next year, on the occasion of his inauguration as Professor of Materia Medica, at Lexington, he answered the congratulator's address in a Latin dissertation on his theme.

But neither Philadelphia nor Lexington was the field for the development of his ambition. The observation of university courses in those places filled him with burning zeal to create like institutions in his beloved Cincinnati; so on his return here for permanent residence, he at once prepared his plans, and spent the winter at the state capital to secure the necessary legislation. Thus he secured the establishment of the Cincinnati College, the Medical College of Ohio, and this hospital; and about this time, in the year 1821, and over this very spot, he gave the first clinical lecture ever heard in this city. Here, thirty years later, he gave his last. It was fitting that in the beginning and end of his career he should occupy the arena which he had created. Let me condense from one who knew him well (Gross' Eulogy), a brief description of his person, manner, and power as a teacher:

"He was in the prime of life, tall, slender, and symmetrical His fine head was crowned with profuse wavy brown hair; his features were regular, with eyes of deep olive, that gave wonderful power and penetration to his countenance, which, now solemn, now radiant, moving with his theme, gave him a striking and commanding presence. His words dropped hot and burning from his lips as lava falls from the crater, carrying along his pupils by the fire of his enthusiasm and impassioned manner, in forgetfulness of everything save the all-absorbing topic under discussion. His varied intellectual riches excited their admiration on the one hand, and respect on the other, for his extraordinary abilities as an expounder of great and fundamental principles. Of all the medical teachers I ever heard, he was the most able and eloquent."

On an elevated but secluded spot in the beautiful cemetery of Spring Grove, you will find a plain monument marking the place of his rest, with this inscription: DANIEL DRAKE, M. D.

SCIRRHUS OF THE GROIN.

Treated by Drs. MUSCROFT and YOUNG. Reported by E. M. NELSON, Resident Physician.

April 28, 1873. G—— W——, æt. 33; Germany; butcher; single. On admission to the hospital, his condition was as follows: Man of average height; fair muscular development; pulse 100; respirations 20; tongue coated; appetite good; bowels regular. On examination. a tumor is found in the left groin, having an indurated base. The tumor was about as large as a pint cup, not sensitive to the touch. The integument was not continous over the tumor. The edges and surface were irregular, nodulated. Some of the nodules were covered with unhealthy looking pus; some with unhealthy granulations, and some with dark crusts. The right testicle was absent.

He stated that eleven years ago he had gonorrhea, and at the same time had a sore on the top of the prepuce. Said that he never had had any secondary manifestations. Eighteen months ago there was an enlargement in the left inguinal region, the tumor being movable under the integument and painless. About three months ago the tumor broke open, and there was a discharge of pus and blood.

Months ago the right testicle was removed on account of some growth in that organ, supposed to be malignant. This operation was performed in the hospital at Cleveland.

Ordered to apply to the tumor chloride of zinc every morning. Also, ordered ℞. acide carbolici, gr. x; glycerinæ, ℥ij; aquæ, ℥ij. M. Sig. ℥ss. Four times daily.

May 1st. Feels some better; surface of tumor is blackened, and small fragments becoming detached.

May 13th. In connection with the chloride of zinc, ordered a deodorizing powder, consisting of alum two parts, to soda bicarbonate one part.

June 3d. Commenced to-day the treatment advised and successfully employed by Marsden, viz., the local application of the arsenical paste. ℞. Acide arseniosi, ℥ij; mucil gum acaciæ, ℥ss. M.

The paste was spread upon two square inches of the ulcerated surface, but did not induce any severe pain. No immediate results could be observed.

June 6th. The surface of the scirrhous mass, treated as above, was almost entirely separated from the harder, firmer cancerous structures underneath.

Ordered to continue application of this paste twice per week.

June 15th. Another large piece of the tumor has ulcerated and sloughed away. He suffers severe pain, necessitating the occasional exhibition of opiates. He is quite weak, and the complexion has become decidedly cachectic. Ordered elix. iodo-bromide of calcium comp. ʒij, ter die.

July 2d. Removed to-day, with the aid of scissors, a large portion of the mass which had ulcerated and sloughed. No severe pain was caused by this operation. Treatment continued.

Aug. 2d. Has been complaining for a day or two of nausea and desire to vomit. To-night he suddenly began to vomit a large amount of green fluid. Seemed to have severe pain in region of the stomach and to some extent all over the abdomen. No change in the appearance of the cancerous mass in the groin. Pulse became very slow and almost imperceptible; skin cold and clammy; respiration hurried; breath cold and having a cadaverous odor. Not being able to assign these symptoms to any other cause, it was concluded that the patient was suffering from arsenical poisoning, caused by the absorption of the paste mentioned above. The further use of this agent was stopped. Stimulant and supporting treatment was ordered, consisting of whisky and beef-essence; but everything that was taken into the stomach was rejected in a few minutes. Slept none at all during the night.

Aug. 3d. Pulse 68, very feeble; skin still cold and clammy; vomiting still continues. Ordered bismuth subnitrate ʒss. every hour. No marked effect seemed to be produced by this remedy. He had several large loose evacuations from the bowels.

Aug. 4th. Ordered tr. iodinii, gtt. ij, in simple syrup, ter die.

Aug. 5th. Somewhat improved. Retains a part of the beef-essence. Does not vomit so frequently as before.

Aug. 6th. Slept better than for several nights; skin warmer; had a natural evacuation from the bowels; pulse 78, temperature 99°. Took and retained several ounces of beef-essence and milk, besides punch, which he takes regularly every three hours.

Aug. 8th. Continues very weak; seems to be failing.

Aug. 11th. Has no appetite; does not relish his food, but only takes it because it is given to him. Still his stomach is much less irritable; vomits not more than once or twice a day.

Aug. 13th. Improving in every respect; mind more active.

Sept. 10th. Much stronger than at last note. The tumor is gradually increasing in size. The ulcerated mass seems to swell up and overlap the sound integument. It extends nearly to the median line, and externally nearly to the anterior superior spinous process of the ilium, and about two inches above and below Poupart's ligament.

Sept. 16th. Applied to a portion of the tumor about one and a half inches square a paste, consisting of equal parts of flour and chloride of zinc mixed with water, and kept upon the part for twelve hours. This was followed by a poultice at night. Applications of the zinc paste, followed by poultices, were continued for several days, and then the zinc without the flour was used every second day through this month; but with very slight effect upon the tumor, only very small portions being detached in this way. The fetor from the cancerous mass was almost intolerable, in spite of the free use of carbolic acid as a disinfectant.

Oct. 3d. Applied bladders filled with ice and salt, attempting to freeze the surface of the tumor, and so cause it to slough, but were unable to secure the freezing.

Oct. 5th. An attempt to freeze by direct application of a large piece of ice having failed, the ice was shaved up so as to resemble snow, and was piled upon the tumor, and renewed from time to time all day.

Oct. 10th. Have kept a poultice to the tumor for the last five days, and there is now a slough all over the surface.

Oct. 15th. Allowed port wine ℥j, ter die.

Oct. 20th. He feels very weak, and has little appetite; but keeps up his spirits remarkably, and seems very cheerful, although he has been informed that his condition is hopeless. The size of the tumor is gradually increasing.

Oct. 28th. The prepuce has become excessively edematous from pressure of the tumor upon the veins.

Nov. 1st. The cachectic discoloration is increasing in intensity.

Nov. 10th. Quite comfortable but weak.

Nov. 13th. He called attention to a tumor in the abdomen just beneath the umbilicus, extending about two and one-half inches transversely.

Nov. 16th. He has a slight cough occasionally. He has been failing rapidly for several days.

Nov. 17th. Died at 5 P. M.

Nov. 18th. Post-mortem examination twenty-four hours after death. No cadaveric rigidity. In the left groin, an ulcerated mass 7x8 inches, and elevated in some parts three or four inches above the surrounding integument. Tumor overhangs root of the penis, extending slightly to the right of the symphisis pubis, and to the left beyond the superior spine of the ilium. The surface of the mass was everywhere ulcerated.

The lumbar glands were immensely enlarged. There was a chain of glands running down along the right side of the pelvis, being lost in the inguinal ring; some of these were softened and caseous. The corresponding glands upon the side of the tumor were not affected. A few of the mesenteric glands were slightly enlarged.

Liver firmer than normal; but no nodules were found. Spleen slightly enlarged, very dark color, somewhat firmer than normal.

Kidneys paler than usual, otherwise normal.

Lungs: Right upper lobe contained at different points under the pleura a few small solid nodules. In the right lower lobe there was no lung tissue to be discovered; but in its place was seen a substance which appeared exactly similar to that found in the lumbar glands. There were lines of division indicating that the growth had arisen from different foci.

Throughout the left lung were nodular masses, principally located beneath the pleura, from the size of a pea to that of an English walnut. Some of these nodules were soft, others quite consistent.

In dissecting the tumor off, it was found to have destroyed the integuments, and at one point to have broken through the fascia lata into the muscular substance. Generally, the fascia lata was not destroyed, but was much thickened.

NOTES ON CLINIC OF DR. JOSEPH AUB.

Reported by E. M. NELSON, Resident Physician.

GENTLEMEN:—I present you this morning a case of more than usual interest. It is a difficulty with the lachrymal apparatus This patient has been in the house for several months with a chronic inflammation of the conjunctiva, which is perpetuated by the condition of the lachrymal apparatus. In this case the disease of the lachrymal passage depends upon a chronic ozena under which the patient labors.

As you know from your study of anatomy, there is at the inner angle of the eye, in the margin of each lid, a small canal, which, passing inward, empties into the lachrymal sac. This dilated upper portion of the passage extends about three lines above the inner angle of the eye, where the canaliculi enter it, and is continuous below with the nasal duct, which extends through the upper maxilla and opens into the anterior portion of the inferior meatus. This whole passage is lined by a mucous membrane, continuous with that of the nasal passages below and that of the eye above, and is liable to be affected by an extension of inflammation of either of those mucous membranes. The condition of the lachrymal passage will be the same whether the inflammation extend from above or below. The mucous membrane swells and fills up the nasal duct. The tears, being retained in the lachrymal sac, distend that, and act as an irritant, causing the formation of pus, which, as it fills the sac, flows back through the canaliculi into the eye or upon the face. You will observe that by pressure upon the side of the nose of this patient I force out a large quantity of pus.

In many cases this condition is relieved by the introduction of a probe or style, so opening and dilating the nasal duct. This plan of treatment having been ineffectual in this case, we shall this morning endeavor to remove the difficulty by obliterating the lachrymal sac. This is to be done by laying open the sac with a knife, and then cauterizing the inner surface thoroughly with nitrate of silver. The incision is to be made as short as is consistent with the thorough application of the caustic, so as to avoid the formation of an unsightly cicatrix. Some operators close the wound with sutures, but I prefer to leave it open, in order to be able to see the appearance after the separation of the eschar, as it is necessary sometimes to repeat the cauterization in order to secure the complete destruction of the diseased tissue.

I will also speak to you of one of the forms of conjunctival disease. The most severe form of conjunctivitis is that which results from the application to the conjunctiva of the gonorrheal matter from the genital organs, or of matter from another eye suffering from this disease. I present you here a patient who comes to the hospital with the following history: About ten days before coming here, while busy at work, something struck him in the eye. He applied cold water, but the irritation did not cease; and in a day or two he found the lids becoming very much swollen, and pus freely secreted from the conjunctiva.

On presenting himself for admission to the hospital, the swelling of the lids and secretion of pus were so striking as to suggest at once the probability of gonorrheal contagion. He denied, at first, that he had had any difficulty of that character for two or three months, but an examination revealed the presence of a discharge from the penis. The probability is that he had received some of this discharge upon his fingers, and that in rubbing the eye at the time when it was struck, some of the matter was transferred to the conjunctiva and excited the inflammation. When he came here, the conjunctiva was very greatly swollen, and there was a profuse secretion of thick creamy pus. The cornea had become involved: there was extensive ulceration and a very large prolapse of the iris; but it was impossible to do anything to relieve that until after the inflammation had been overcome to some extent.

Within four to six hours of the application of the gonorrheal matter, symptoms of acute inflammation appear. The first sensation is as if sand had been lodged upon the inner surface of the lids, then the lids become swollen and heavy, so that the patient can not open them. Externally they appear puffed, of a dull red color, and somewhat shining from the tension. When the lids are gently separated, there is immediately a free outflow of thick creamy pus. The conjunctiva is intensely red and swollen, so much so that it lies in rolls upon the inner surface of the lids; or the ocular conjunctiva may be so swollen as to overlie the margin of the cornea and conceal any beginning affection of that part. The tendency to ulceration of the cornea, with perforation, prolapse of the iris, opacity of the cornea, corneal staphyloma, and other sequences, is the chief danger in cases of purulent ophthalmia.

The destruction in these cases is so rapid that often sight is irrecoverably lost within twenty-four hours after the onset of the inflammation. Hence the most active and energetic treatment is demanded.

The eye must be thoroughly cleansed with lukewarm water every half-hour or oftener. This we have done in this case, as you will observe, by carefully everting the lids and throwing the water upon them by means of a little syringe. In everting the lids great care must be exercised, especially when there is a question whether or not the cornea is involved, that no pressure is made upon the ball of the eye. By drawing the finger lightly over the lid, and allowing the patient to look downward, the lid will, in most cases, turn very readily and reveal the whole extent of the swollen conjunctiva. You will observe that in washing these lids I am careful to stand as much behind the patient as possible. That is a point which you would do well to note; for if you stand before a patient when syringing his eye, you are in greater danger of having some of the poisonous matter thrown into your own eyes. In order to check the secretion of pus and reduce the swelling of the conjunctiva, we use astringents, and especially a strong solution of nitrate of silver, from ten to sixty grains to the ounce of water. (In this case, we have used a twenty-grain solution.) After cleansing the eye thoroughly, as you have seen me do, the nitrate of silver is to be applied to the everted lids by brushing it on with a camel's hair brush. When this has produced a whitening of the conjunctiva, which is done in from one to two seconds, the surplus is to be washed off with clear water or a solution of salt in water.

One other point in the treatment is the continual applications of cold. Small compresses, made from two or three thicknesses of muslin, dipped in ice-water, or better, cooled by lying upon a cake of ice, are applied to the closed lids, and are changed as soon as they become at all warm. The inflammation is so high in these cases that the compresses become heated very quickly, and they should be changed as often as every minute; for unless the application of cold is constant, it is worse than useless.

This has been the treatment in this case. Where a patient is seen before ulceration of the cornea has taken place, atropia should be instilled into the eye, in order to dilate the pupil and prevent the prolapse of the iris, in the event of ulceration and perforation of the cornea.

In many cases the general condition of the patient is such as to demand the use of tonic treatment internally. They are often very much broken down and debilitated by the continuance of the gonorrhea before the eye is affected, and in these cases it is necessary to build them up by the use of iron in some form, quinia, or other tonic remedies.

It is a matter of great importance where only one eye is affected to prevent the well eye from becoming implicated. The well eye may best be protected by hermetically sealing it. This is done by covering the eye with a piece of lint, then laying on some cotton wool, and binding the whole in place by strips of diacolon or other adhesive plaster, and further, by painting the edges of this covering all around with collodion. When the eye is so sealed up, the covering must be removed twice a day, and the eye carefully examined, for fear that the poison may have entered the eye and inflammation been excited, in spite of the care taken to prevent it. It is a good deal of trouble to apply and remove this dressing twice a day, and many physicians neglect it, very much to the disadvantage of their patients. In a hospital, where we have the patients under control and under constant observation, and can have the treatment carried on continually, this sealing up of the eye is not essential.

Night Sweats of Phthisis.—For the relief of this exceedingly troublesome symptom in this disease, a comparatively new remedy is being used somewhat. It is the sulphate of atropia. Some of the patients are taking one-sixtieth of a grain in solution *ter in die;* some are taking one-hundredth of a grain at bed-time, and all are giving very good results. The success in this direction has already been sufficient to entitle it to a trial at least. A very excellent plan of managing these night sweats consists in sponging the patient in hot water, as hot as they can comfortably bear. If a patient is found sweating profusely in the night, take him out of bed, sponge him thoroughly with hot water, wipe him dry, replace his flannels, and put him back to bed. Sometimes a single sponging will arrest the sweating for two or three days.—*New York Medical Record.*

Medical Societies.

NORTHWESTERN OHIO MEDICAL ASSOCIATION.

The regular semi-annual meeting of the Northwestern Ohio Medical Association was held in Toledo; the session beginning on the evening of December 3d, and continuing through the next day.

This society is auxiliary to the Ohio State Medical Society, and is composed of members of the profession residing in Northwestern Ohio. Regular meetings are held semi-annually, in months of June and December, at such a point as may be selected from time to time.

Dr. J. N. Hetzler, of Celina, President of the society, occupied the chair; Dr. S. A. Baxter, of Lima, Secretary.

Dr. L. A. Bodman, President of the Toledo Medical Society, delivered the following address of welcome:

Mr. President, and Gentlemen of the Northwestern Ohio Medical Association:—In behalf of the society over which I have the honor to preside, and by its direction, I extend to you a cordial greeting. We welcome you heartily on this the first occasion of your meeting in our city.

You do not come among us as strangers; for pursuing, as we do, a common vocation, bearing the same burdens of anxiety and responsibility, discharging the same duties in the unobtrusive but toilsome round of our daily lives, actuated by the same devotion to all that concerns the welfare of our loved profession, we greet you as members of a common brotherhood.

Nor are these the only incentives that bid us welcome you. During the past year, some of the worthiest and most highly respected members of our society have also joined your organization. Returning from your meetings, they have brought with them reports of your efficiency and success as a scientific association, that have made us desire a more intimate acquaintance with you personally, the interchange of fraternal courtesies, and a mutual conference upon such medical subjects as your discussions may evoke.

You will, therefore, permit me very briefly to allude to the history of the "Toledo Medical Association:" Founded in the year 1851, when our city, now numbering 40,000 inhabitants, was but a small, and to the superficial observer, an unpromising village, its meetings were soon discontinued until the year 1856, when the society was reorganized. Of the gentlemen composing its original membership, now in practice, and still connected with it, there remains only his honor the mayor of Toledo, who, foremost in securing its primary organization, has been equally prominent in the promotion of its subsequent history and development.

From the period of its reorganization, with a membership of eleven, it has steadily grown numerically until the present time, when more than seventy names are on its enrollment. For seventeen successive years the society has held regular monthly meetings, excepting for a short period during the war, when most of its leading members were absent in the army. Of their results I may only allude to the valuable records that have been carefully preserved of its meetings, to the large number of original essays read, and to the rich store of cases reported, with the discussions thereon.

While much has been accomplished in these respects, in another point of view the influence of the society has been most beneficent. When I state that its regular sessions from year to year have been characterized by courtesy in debate, and by all absence ef any disturbance from those personal cliques and rival factions that have sometimes been the bane of such organizations, I but pay a merited tribute to the conservative influence which our society has thus far exerted in promoting the peace and harmony of the profession in this city.

Your own experience and observation, gentlemen, will bear witness to the social as well as the scientific advantages of well regulated medical societies. Representing, as we do, no *sect* in medicine, exacting fealty to no self-constituted founder of the various systems, so called, that have their brief day of popularity, truly accepting the accumulated wisdom of the centuries, as well as the most recent discoveries in science, should not all who are found in the works of regular medicine give them their adherence and their support?

From the very nature of our relationship to the public, our position toward each other is often one of comparative isolation. Our conflicts, as we "battle but to save," are upon no conspicuous arena. Standing daily, as we do, alone, "before the unveiled mysteries of life and death," our triumphs are often unheralded. Under such circumstances, how do not these confraternities bring us closer together in helpful sympathy! How do they not add to the archives of medical experience! How do they not foster the amenities of professional life, and stimulate the nobler impulses of our nature!

It is on account of *these* considerations, gentlemen, that we again bid you thrice welcome to our hospitalities.

On motion, the following persons were admitted to membership:

Toledo—W. W. Jones, S. W. Skinner, Jas. M. Waddick, J. G. Nolen, J. S. Cole, J. W. Bond, H. M. Schaltzler, J. M. Cooke, Zep. Rouleau, A. W. Fisher, Fred Jager, S. H. Bergen. H. A. Root, A. Bigelow, S. F. Forbes, L. H. Bodman, W. M. Douglass, J. T. Lawless, Alex. McMillan, J. Green, C. H. Reed, C. A. Kirkley, Jonathan Priest, W. T. Ridenour, W. C. Chapman, Jas. Coldham.

Napoleon—E. B. Harrison, J. S. Haley.

Wauseon—Philo Jones, N. M. Jewell, Wm. Hyde.

Sylvania—John M. Crafts, Thomas Cosgrove.

New Baltimore—A. G. Henry.

HONORARY MEMBERS: *Toledo*—Charles Cochrane, Oscar White. *Ottawa*—C. T. Pomeroy. *Detroit*, *Michigan*—Prof. E. W. Jenks, Prof. L. Conner.

Dr. Runkle, of Ada, made application for permission to practice. Referred to a committee of three.

Dr. Cherry, of Toledo, read a paper on Syphilitic Corneitis.

Dr. G. A. Collamore read a very interesting paper on Chloral Hydrate, giving some time to its chemical characteristics and theories in regard to its mode of action when taken into the circulation.

Dr. S. W. Skinner, health officer of Toledo, read a report of two cases of cerebro-spinal meningitis, which were peculiar in many respects, differing materially from the usual course of that disease.

Dr. Anson Hurd, of Findlay, read a paper on "Puerperal Eclampsia," reporting the treatment of several cases occurring in his own practice. The writer advocated a return to the use of the lancet and a full blood-letting as the only successful mode of procedure in very many of the cases which occur.

This essay was well received by the association, and will be printed for distribution.

Dr. S. S. Thorne presented a case of hereditary syphilis, which showed the frightful deformities caused by that disease. The patient, a boy about fourteen years of age, had suffered from the disease from infancy. When first observed, the tonsils of both sides, the uvula, and all of the soft palate were in an ulcerated condition. Proper treatment was instituted, and the case was progressing favorably, when the patient refused to have anything more done for him. Some time after, Dr. T. was sent for in a hurry, word being given that the boy was choking to death. On making the visit the doctor found his patient gasping for breath and in a very forlorn condition. On making a physical examination of the throat, the whole pharynx was, to all appearances, completely closed by cicatricial tissue, originating in the ulcer spoken of above. After careful manipulation an opening was found large enough to allow the passage of a small probe. Through this opening the patient had received all the nourishment he had required for his sustenance. The case has been receiving treatment, the attempt being made to enlarge the passage by gradual dilatation, by the use of bougies.

Dr. Bigelow, of Toledo, followed with a paper upon "cancerous degeneration of bone," presenting to the association a cast of the leg upon which he had operated, together with the bones removed.

Dr. L. H. Bodman reported the success with which he had met in treatment of "mammitis" with "unguentum belladonna."

Dr. E. W. Jenks, of Detroit, followed with an extended review of the whole subject of mammitis, which, although impromptu, was listened to with satisfaction by the society.

The association then adjourned, to meet at some place, to be chosen by the committee, on the first Wednesday in December next. The June meeting will be omitted this year, as the State Society will convene at Toledo during that month.

In the evening of Thursday, the members of the profession, together with invited guests, numbering about seventy, assembled at the Oliver House, and an hour or more was pleasantly passed in discussing the merits of the repast there offered by the Toledo association to their invited guests, thus fitly closing a meeting which can but result in much good to the profession in this part of the state.

Selections.

Evidences of Life in the newly-delivered Child. By WILLIAM B. ATKINSON, M. D., Physician to the Department of Obsteries and Diseases of Women and Children, Howard Hospital, Philadelphia, etc.—My opinion having recently been asked as to the fact of a child having life at delivery, in a case involving a large estate, I have been led to investigate the subject, and collate the views and opinions of authorities on this delicate and important point.

First. What are the indications of life?

Before delivery the fœtus possesses circulation without respiration. While this continues, and while the heart maintains its action, the fetus lives and carries on all the functions of embryonic life. The cessation of the heart's action, and consequently of the circulation of the blood, marks the death of the child, and decomposition soon commences.

So long as pulsation continues in the cord, the fetus, though inaccessible to the touch, is regarded as possessing life. This belief is so well established that all obstetricians hesitate in the performance of certain operations which may be rendered necessary by malformation of the pelvis, or malposition of the child, when said operation must necessarily lead to the destruction of life in the child. Indeed, the Roman Catholic Church provides for the baptism of the undelivered child under such circumstances, and does not hesitate to pronounce such an infant as saved, if the ceremony is performed while such pulsations are known to exist, however feebly they may occur.

Now, if the fetus is living as long as pulsation exists, may we not equally claim it as alive if such pulsation exists after delivery, even though respiration has not been established, or even attempted.

Upon this point obstetrical authors maintain a remarkable silence. In works on medical jurisprudence we find more light thrown upon this intricate and important matter. Beck says: "There are two ways in which a child may be born. When born, the cord may be pulsating, *showing that it is alive*, and yet it may not respire. In this state it may continue for a sufficient length of time to die from natural causes, or in consequence of criminal interference, before respiration has commenced."—*Beck's Medical Jurisprudence*, eleventh ed., 1860, vol. 1, p. 494.

Taylor tells us: "It was formerly supposed that if the lungs contained no air the child could not have respired, and it must have been born dead. But neither of these views is correct; children have been known to respire faintly, and continue in existence many hours without visibly distending the cells of the lungs with air; the absence of air from the lungs, therefore, furnishes no proof either that respiration has not been performed, or that the child has not lived. (G. H. Rep., April, 1842.) That our law-authorities will admit evidence of life in a child before the establishment of respiration, is clear from the decision of Judge Parker in the case of *Rex* v. *Brain*, in which he said that a child might be born alive and not breathe for some time after its birth (*Archbold Crim. Plead.* 377), as also from the charge of Mr. Justice Coltman, in the case of *Rex* v. *Sellis* (*Norf. Spr. Cric.*, 1837). In this instance it was alleged that the prisoner had murdered her child by cutting off its head. The judge told the jury that if the child was alive at the time of the act, it was not necessary, in order to constitute murder, that it should have breathed. In fact, it would appear that respiration is regarded as only *one* proof of life, and the law will, therefore, receive any other kind of evidence which may satisfactorily show that the child has lived."—*Taylor's Medical Jurisprudence*, p. 324.

Cases are also on record going to show that the law would regard it as willful murder, if respiration were prevented.

On further research it would appear that the civil rights appertain to a child born, though it has not yet breathed.

Taylor again tells us (p. 428): "The pulsation of a child's heart, or even the spasmodic twitching of the muscles of its body, is regarded as a satisfactory proof of live birth. The latter sign has been judicially so pronounced, *a fortiori*, therefore, the motion of a limb will be considered good evidence, in an English court of law, of life after birth."

Provided these manifestations of the presence of life are undoubted, the time during which they continue is not material.*

Taylor mentions a case (*Fish* v. *Palmer*), tried in the English

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* "A child which survives entire birth for a single instant, acquires the same civil rights as if it had continued to live for a month longer."—*Taylor*, *op. cit.*

Court of Exchequer in 1806, where the plaintiff's wife, possessed in her own right of landed estate, died after delivery of a child, supposed at the time to have been born dead. The estate was claimed by Palmer, her heir-at-law, and surrendered by Fish in consequence of his not having a living child by his marriage. Subsequent information led to the belief that the child was born alive. In the action which was brought to recover the estate, Fish produced evidence to show that the physician who attended his wife (since deceased) had declared that the child was living an hour before it was born, and when it was born he had it immediately placed in a warm bath by the nurse. It did not manifest any signs of active existence, yet the two women who attended it, swore that there appeared twice a twitching and tremulous motion of the lips. It did not exhibit any further signs of existence.

The question next arose, whether this was sufficient evidence of the child having been born alive?

The medical men differed. Two gave it as their opinion that had the vital principle been extinct there could have been no muscular action in any part of the body, therefore it had been born alive, or manifested life, after its entire birth. One demurred, and attributed this motion of the lips to the remains of intra-uterine life.

The jury, under the charge of the court, pronounced the child to have been born alive, and the plaintiff recovered his estate.

All physiologists would readily acknowledge that such movements could not occur in a body devoid of life; that they must be due to the presence of some vital power.

Casper's Forensic Medicine really throws no light upon the subject. He quotes the General Common Law, part i, tit. 12, sec. 13. The *live birth* of a child is to be held proven, when it has been heard to cry by witnesses of unimpeachable veracity, present at its birth. This is all. The subject is not again alluded to.

In the last edition of *Wharton and Stille*, vol. ii, p. 100, we find the following: "It is important to bear in mind that there may be *life without respiration*. The circulation may go on, and the child may make various muscular movements, after it is separated from the mother, without respiring; sometimes, owing to congenital feebleness, or to its being in an asphyxiated condition, it makes no effort to breathe; and again, all its efforts may be fruitless, from the obstruction of the fauces and larynx with viscid mucus. Hence, paradoxical as it may seem, a child may live and die without having breathed. . . . The attempt too strictly to define the essential conditions of life has led to some absurd conclusions. In Germany, a distant vocal sound is required by law as the evidence of life. But this appears to be modified in practice by the substitution of breathing for vocal sound, and the doctrine is accepted that respiration and life are reciprocally evidences of one another." Hence, intra-uterine life is not life. This view is not tenable, when we consider the many instances of suspended respiration for a longer or shorter period, as in attacks of trance, or, what is of more frequent occurrence, of syncope.

There must be life, so long as even the feeblest circulation continues. In fact, this is demonstrated by the test by which to determine in cases of apparent death whether life is utterly extinct; a ligature placed around the end of a finger, by impeding the return of the venous blood, at once shows that circulation still continues in the capillaries, and hence that life has not entirely departed.

In the work just quoted, instances are given to show the importance of this matter. In these cases, because of the presence of pulsation, even after the lapse of several hours, efforts at resuscitation were made and crowned with success.

Wharton and Stille (op. cit., p. 117) give, as one chief point that has been demonstrated, " that life for a brief period is compatible with absence of respiration."

In conclusion, with such an array of facts and opinions, we would most earnestly caution the profession against the careless habit which so frequently obtains, of reporting a child as *still-born*, merely because it lived but a short time after delivery.

We are firmly of the opinion that a large number, perhaps even a majority, of those reported among the still-births were living, even breathing, for an appreciable interval after their complete separation from the mother.

NOTE.—The last edition of "Taylor's Medical Jurisprudence," issued since the above was written, gives, p. 624, *et seq*, additional cases of equal value.

Typhoid Fever.—The recent outbreak of typhoid fever in London has afforded a text for much interesting discussion. The origin of the epidemic is supposed to have been traced to the milk supplied by the Dairy Reform Company, on one of whose farms typhoid fever existed, and it was found that a large proportion of those who were affected by the disease received their milk from this particular farm. A number of other interesting facts all seemed to point to this conclusion, and the company was immediately notified as to the probability of this origin, in a communication signed by Sir William Jenner and Dr. Murchison. Notwithstanding this testimony from such high authority, the company hesitated for several days to stop the milk supply, and have been soundly abused by the medical journals for their scepticism. The supply of milk once cut off, the epidemic, it was thought, declined considerably. In addition to a protracted discussion, brought about by this action of the company, many ingenious theories have been advanced as to the way in which the milk became the bearer of the contagion. A loud cry was raised against the use of sewage grass, but it was soon found that the Dairy Reform Company had never used it. A more plausible theory was that set forth by Dr. Michael Taylor, in a London daily paper. The warm milk, he states, absorbs with readiness effluvia from the air, and is in the highest degree susceptible to the least mustiness and putrescence in the atmosphere. It is in truth, he says, the most congenial soil or *nidus* in which contagion may nestle and fructify, and in which, like leaven, the germs of typhoid, scarlatina, and cholera may be reproduced and multiplied The way in which the poison enters the milk, according to his showing, is not appetizing, to say the least, to partakers of this beverage. In a previous similar outbreak, the cows were milked by the hands of a woman who was nursing cases of typhoid fever on the premises. The dry epidermic dust, the *debris* from the peeling of the skin, was shaken from the arms and dress of the milker into the milk-can, or was absorbed from the atmosphere charged with these floating particles.

It has been also supposed that the water with which the cans were washed came from a well tainted by a defective sewer. This was found to be the case at Wolverhampton, where an epidemic of typhoid was also raging.

Although there has been much debate as to the way in which the milk has been contaminated, little doubt has existed amongst the profession in England that such is the fact. But now that the smoke of battle has cleared away, we understand, at last accounts, that serious doubts are arising as to whether the much-abused milk is, after all, to be held responsible for the outbreak.

A New Operation for Aneurism.—On Monday, October 13, Dr. R. J. Levis performed, at the Pennsylvania Hospital, an operation so novel in its conception, so plausible in its theory, and, if it turn out successful, so important in its power of saving life, that it seems worthy of editorial notice. The case was one of subclavian aneurism, involving it is believed, at least to the extent of dilatation, the innominata. Tying the artery has been thought by the surgeons who have examined the case to be of more than doubtful expediency, and Dr. Levis has carried out a procedure which he tells us has long been in his mind. As every one knows, the late Charles H. Moore, surgeon to the Middlesex Hospital, conceived and put into execution the idea of introducing fine iron wire into aneurisms, to afford a nucleus about which clots should form. His practice has been followed in two cases, by Dr. Donville and Mr. Murray, both English surgeons. If we remember aright in each of these instances the aorta was the artery involved, and the result was unfavorable.

Dr. Levis' idea consists in the use of horse-hair, with the belief or expectation that it will offer sufficient obstacle to the blood-current to cause coagulation, and at the same time, being animal in its nature and not apt to undergo rapid decomposition, like the catgut ligature, will cause no irritation and not give rise to suppuration.

The horse-hair was introduced through a fine sharp needle canula, which was plunged into the sac. No difficulty was experienced in its introduction, and twenty-four feet nine inches of it were safely stowed away in the aneurism. In all probability this mass was driven in great part into the distal portion of the aneurism by the blood-current. Be this as it may, a marked diminution in the force of the pulsation of the aneurism and of the pulse of the wrist was at once induced. This has increased since the operation; the tumor has also gained greatly in solidity, the pain has lessened very much, and no unfavorable symptoms have resulted. As, on the other hand, the radial pulse and the aneurismal throb have never disappeared entirely and as the dangers of suppuration of the sac are not yet past, it is too early to predict the result.—*Philadelphia Medical Times.*

Colorless Tincture of Iodine.—℞. Tincture of iodine, pure glycerin, aa. ℥j; sulphite of soda, ʒj. Rub the salt to a powder in a small mortar, and add the glycerin gradually; then pour in the tincture of iodine, and triturate gently until a solution is effected, and the mixture assumes an amber color. It is asserted that the properties of iodine are increased by the addition of the sulphate of soda, and that the glycerin enhances the value and convenience of the preparation for local application.

A New Treatment for Tape-worm.—In March last, J. M—— applied to me to rid him of a tape-worm. He had been under treatment previously; had taken kousso, malefern, and pumpkin-seed. without cure. I gave him large doses of turpentine, with no effect save to excite some inflammation of the stomach. In August, the man applied to me again, not so much to be rid of the worm as for relief from the gastric troubles excited by the animal. After these had passed off, I gave, with the usual precautions, a half-ounce of fluid extract of malefern, but still without the hoped-for effect.

The idea then struck me, if small quantities of "carbolic acid" are so pernicious to leeches, is it not probable that the drug might be used against a tape-worm. Accordingly, having purged the patient, I administered six grains of "carbolic acid" in a half-pint of water, four times a day. After two days of this treatment, as only a few joints of the worm had been avoided, I changed the vehicle from a liquid to a pill form. Powdered extract of liquorice was used, and each five-grain pill contained two grains of "carbolic acid;" of these the man took one every hour, and a purge of rhubarb and jalap every morning. He soon began to pass large fragments of the worm, and on the third day the head and about four feet of the body of a tænia solium. He had taken thirty-five pills without inconvenience of any kind. He got well quickly, has remained well since, and I am satisfied is cured. I have since thought that the pills would have been improved by a delicate coating of paraffine; the object being, of course, to cause the pill to pass through the stomach unchanged into the intestine, carrying with it the "carbolic acid" in direct contact with the worm.—J. H. BILL, *Surgeon U. S. Army, in Medical Record.*

Some of the Causes of Hæmoptysis.—There is scarcely an event occurring in the general practice of medicine, exc pt it be post-partum flooding, that so shocks and, to an extent, paralyzes the physician, as copious hæmoptysis.

Notwithstanding the conviction of the experienced that this h emorrhage rarely proceeds so far as to produce immediate death, yet, remembering that the blood is life, and to see that life, as it were, gushing from both mouth and nostrils, and that, too, from a being already chlorotic from a wasting disease in a vital organ, is sufficient to disturb the equanimity of the most deliberate.

This loss of blood may arise from various causes, and at various periods of health and disease.

The causes may be conveniently, and to a certain extent truly, divided into two classes,—those external to the body, and those internal, or arising as a result of diseased condition. Of the first, we have mechanical injuries to the chest, such as penetrating wounds. During the late war of the rebellion this was not an uncommon event in the experience of many of us. So also from fracture of the ribs, spiculæ of bone penetrating the lung-tissue, the inhalation of caustic fumes and particles of irritating dust, as in the case of file-makers or those employed in grinding and polishing metals. It frequently results from excessive physical exertion, as in straining, or lifting heavy bodies. The forced retention of air in the lungs whilst the abdominal and thoracic muscles are rigidly contracting will, in many cases, produce either an emphysematous condition or a complete laceration of the viscus with its contained plexuses of arteries and veins.

Of the second class, catarrh may be named as occasionally causing hemorrhage; though the uncomplicated attacks usually traceable to this cause are of so slight a character that we are forced to the conclusion that the bleeding is from the vessels on the larger bronchial surfaces, and not from the lungs proper.

Another very fruitful cause of this hemorrhage, and one frequently not recognized, is disease of the left side of the heart. The defective mitral valve, with its indurated, contracted, and weakened segments, no longer protects the delicate lung-structures against the powerful contractions of the left ventricle, and, as a consequence, regurgitation takes place, thus keeping up a constant and forced dilatation of the pulmonary vessels. These sooner or later give way, producing the most annoying and obstinate attacks of hæmoptysis with which we meet. Indeed, there is no more unfortunate complication with which the consumptive can be afflicted than this same disease of the heart.

We have also what are called vicarious hemorrhages,—those following the interruption of habitual discharges, such as hemorrhoidal or menstrual. They are occasionally serious, yet by that remarkable law of accommodation in nature the vessels soon become reconciled to the excess of blood, and it flows on submissively in the natural channels. Notwithstanding the facility with which we can thus rationally account for almost every form of hæmoptysis, we usually associate its occurrence with an internal and far more grave disorder than any of which we have as yet spoken,—viz., the incipiency or full-fledged existence of consumption.

Authorities differ widely in regard to the relationship existing between this hemorrhage and the presence of tubercles in the lungs. Launce, Louis, Rokitansky, Watson, Williams, and many of our own writers, associate the two as almost invariably dependent the one upon the other. Either the hemorrhage, by its subsequent clots, creates a local irritation, congestion, and inflammation, thus clogging the channels of nutrition, the lymphatic glands degenerate and are converted into tubercles, or the whole mass becomes cretaceous phthisis; or, on the other hand, fully developed and softening tubercles by the ulcerative process open a pulmonary vessel and thus act as a direct cause of hemorrhage. Though there may be valid reasons for rejecting hæmoptysis as pathognomonic of consumption in the early stage, yet in the latter it becomes a direct result, pointing to softening and actual destruction of lung-substance. There are, undoubtedly, numerous instances in which hemorrhage has been frequent and copious without terminating in disease; yet it is a well-established pathological fact that in cases of tubercular cachexia there exists a fragile state of the blood-vessels not usually found in other diseases. This degenerating tendency, so characteristic of consumption, greatly favors, and is the only way of accounting for, this bleeding in the early stage, when the physical signs do not as yet indicate disease. We have often watched, and with a degree of certainty predicted, hemorrhage in the early stages of phthisis. The history and symptoms of such a case would be about as follows: An irritating, short, and dry cough, traceable to a slight cold contracted a few days previously; great oppression, difficulty in breathing, loss of appetite, thirst, continued fever; pulse rarely under 100; temperature from 100° to 104°; expectoration very slight, and of a saltish taste. Percussion signs at first almost nil. Auscultation would reveal dry tubular sounds over a part of one or both lungs. Respiration rapid, with *prolonged* expiration. These symptoms would gradually become aggravated, continuing for several days, when, after an unusually severe attack of coughing, hemorrhage would commence. The relief following this occurrence sustains our explanation—viz., the existence in the first place of tubercular deposits to an extent not as yet recognizable by physical signs nor incompatible with the normal functions of the lungs. But the catarrh awakens the fire; the flames spread rapidly to the miliary centers already existing, and, upon the principle of *ubi irritatio ibi affluxus*, an active congestion results, and the degenerated and enfeebled blood-vessels, unable to endure the pressure, give way.

The main cause, however, in the advanced stage, and the one resulting in the most copious loss of blood, is the dilatation and thinning of the pulmonary blood-vessels. By some authors it has been named ectasis, or aneurism; but to the sight and touch in the cadaver it resembles the varicose condition often found in the veins of the lower extremities. In the process of softening and conversion of the tubercular or adenoid substance into pus, cavities are formed, through or on the walls of which the pulmonary vessels pass; by the loss of structure they are exposed, the normal support of the lung-tissue is removed, and the vessels dilate and eventually burst.

This event may occur in the formation of emptying of each successive abscess. The progress of the disease to a fatal termination depends upon the rapidity with which one abscess follows another. —H. Y. EVANS, M. D., *in Medical Times.*

A Case of Poisoning by Five Grains of Strychine treated by Chloroform Inhalations; Recovery.—As the following case may be of some interest, I will submit it to the profession:

Mr. B., shop-keeper, a middle-aged man of temperate habits, while suffering from depression of spirits, obtained, on September 1st, ten grains of strychnine, representing his intentions were to poison a dog. He secured a room at a hotel, took a dose of laudanum as a preparatory step, and went to bed, intending to swallow the drug as soon as the effects of the opiate were apparent. It appears he fell asleep, and did not awake till half-past four in the morning, when he took half the quantity previously mentioned. Some time after, he was seized with convulsions. The occupants of the adjoining rooms, awakened and alarmed by his screams, at length came to his relief. I was called and saw him at 6 A. M. I found him lying in bed; legs and arms extended, his hands firmly clenching the sides of the mattress; intellect clear. He confessed he had taken strychnine. The clothing, by his request, had all been removed, as the slightest touch produced a spasm. I administered twenty grains of sulphate of zinc as soon as it could be obtained. This he swallowed with great difficulty, the contact of the solution with his mouth producing trismus and constriction of the throat. The paroxysms came on every three or four minutes. He was conscious of their approach, and entreated us to hold him, to raise him up, or lift him out of bed, till his body became fixed, his head drawn back and articulation impossible. In this condition of complete opisthotonos, he remained for about a minute, his face livid, and death apparently inevitable. I now resorted to chloroform inhalations, with the happy result of preventing each paroxysm from lasting over a few seconds, or subduing it before the muscles of the back became rigid. So soon as he felt one coming on, I applied the vapor to his mouth; when the muscles were completely relaxed and the breathing natural, I removed it. The convulsions returned regularly till 2 P. M.; the intervals then grew longer till 5, when the paroxysms entirely subsided. For some time after he regained the use of his hands and arms, the legs could not be touched without producing a shock, as if the poles of a battery had been applied. In the eleven hours, he had used over a pound of chloroform. During the night and next day, I found it necessary to relieve the bladder with the catheter. The following evening—thirty-six hours after I first saw him—he was taken home in his carriage, and a week subsequently he walked to my office, although still suffering from soreness and stiffness of the muscles.

In this case, the sulphate of zinc did not produce emesis, nor did I repeat the dose, feeling confident the drug must already have been absorbed. And here I would state that the treatment given in all the books, viz., "give emetics, and persist in their use till free emesis is produced," should at least be modified. If we do not see the patient till a quarter of an hour after the poison is taken, or if convulsions have set in, emesis will surely do much harm. In a case I saw in Philadelphia in 1868, the patient was nauseated with doses of sulphate of zinc and ipecac. Each attempt at emesis produced the most alarming convulsions. With chloroform to ward off the convulsions till the poison is eliminated from the system, deaths from strychnine will be very rare.—G. W. COPELAND, M. D., *in Medical and Surgical Journal.*

Neurotomy.—The state of medical opinion as to the results of nerve sections has undergone some strange reversals from time to time, until of late, owing chiefly to imperfect observation on the part of certain eminent surgeons, we are told that a large nerve can reunite within a few days after having been divided, and can thus early reassume its lost functions. Upon this point, as has often happened, the physiologists and clinicians were on opposite sides. Nerve-sections in the laboratory, even in young animals, gave no such result as the presence of feeling a few hours after the division of a nerve. It is most interesting to observe what occasioned this conflict of opinion, and to see how both sides were somewhat astray, and how the truth—a most useful and practical one—has at last come out of it.

In 1864, the usual physiological belief was, that a nerve having been cut, some definite region to which it was distributed would lose all sense of feeling, and that certain muscles would act no longer until after many months, when, in fortunate cases, the nerve-ends reunited, and the sensory and motor functions became partially or fully restored. In the same year, 1864, Laugier brought the ends of a cut nerve together by suture, and saw that the parts involved had some feeling and motion *the very same day*. As strange results were obtained by Nelaton and Paget. But soon after Verneuil pointed out that in cases where no reunion could have taken place, where, in fact, a post-mortem section showed absence of union, motion had been seen and sensation noted in the parts concerned: so that some of the cases proved too much. In 1867, Letiévant, after dividing the median nerve in man, satisfied himself that both feeling and motion remained, where, according to the ordinary notions, none should have been found. A careful study, however, showed that each muscle fed by the cut nerve was really palsied, and that the motions seen were due to muscles supplied with nerve-force by the ulnar and radial. As to this there can be no doubt; and my own study of a recent case has on this point satisfied me thoroughly. The seeming presence of feeling was more of a puzzle. It was found that feeling was vastly lessened in the median area, but not lost, except in a very limited space: now, this state of things existed within a few hours after the section, when not even the wildest believer in regeneration of nerve could dream it had already taken place. The explanation in this especial case lies in the existence of branches from the ulnar which enter the median nerve below the point of section, and also in the intimate plexus it forms with other nerves at the finger-ends. The anatomists are, in part, responsible for the clinical difficulty. Take, for instance, Flower's Atlas, or most of the anatomies, and you will see that the median innervates this area, and the ulnar that, and so on, while in truth this whole surface-anatomy is a fiction and has to be studied anew by closer dissections and by utilizing such nerve-sections as are made in man. In fact, I believe it will be found that the regions of skin made sensitive by but one nerve-branch are very limited, and that throughout the whole surface, and not merely at the extremities, division of several nerve-stems will be needed to extinguish feeling of all forms in any one part of the skin. Strange, then, as it may seem, there is yet room for a careful monograph on the anastomoses of the main nerves. As regards the hand, some of these are pointed out in certain anatomies, and not in others. In Hilton on "Rest and Pain" there are interesting facts in this direction, and so also in Hirschfeld; while Letiévant has described at least one hitherto unnoticed anastomotic branch between the ulnar and the median. Yet later, Arloing and Tripier have shown that in cats and dogs these communications are so complete that to annihilate feeling in any one part of the paw all its nerves must be cut.

I was amazed of late to see how difficult it is in man utterly to destroy feeling in the arm. In a notable case, Dr. Maury divided the whole brachial plexus in the neck. At first the posterior and inner cords were cut, and the patient was allowed to become free of the effects of ether. To my surprise, he still had touch-sense in the palm and dorsal surface of the hand, forearm and arm, and on the inner face of the arm. The inner face of the forearm I think I did not examine. As to the rest, I am positive that partial feeling remained until, the external cord being divided, the whole sensibility was lost save at the upper parts of the arm, where there was, and still is, some tactile sense, due, I presume, to filaments given off from the plexus above the point of section. I do not dwell on the case, as it will be more fully related at another time. It went far toward justifying the extreme opinion I have mentioned as that likely to become a future medical belief. I had certainly believed, with others, that in the brachial plexus the interchange of fibers was notable, but I had not supposed it to be so perfect. M. Letiévant and I myself have pointed out some of the fallacies which arise from want of care in studying the true areas of lost feeling; but it is needless to dwell further on this.

I may add that his views as to surface-anatomy of nerves are well illustrated by cases of my own, and that the lapping over, so to speak, of nerve-territories is to be seen in the face as well as in the extremities. Careful study of his facts, and of one of my own which I am about to publish, has shown that the nerve-distribution in the hand is subject to certain variations, so that sometimes the median, for example, innervates the palmar face of the thumb, the index and half of the second finger, sometimes extends over the whole face of the latter, and very often reaches the line given in Flower's plates, which carry it up to the middle of the face of the third finger. Also, in my case it gives scarce any surface-feeling to the palm, while in Letiévant's it largely supplies the palm on one side, according to the commonly received anatomy. Its section also greatly damages feeling on the dorsal aspect of the thumb, the index and second finger, but the area affected is not the same in his cases and in mine. Like variety exists as to the ulnar distributions, and, as I shall show in future, the radial nerve has been cut, and has left in one case so large a degree of feeling on the dorsal face of the hand that neither the patient nor the physician could perceive that there was any loss at all.

It is to be hoped that a few years will give us a large number of careful maps of the regions in which feeling is lost after nerve-sections. If they are made by observers as careful as Letiévant, we shall have, by-and-by, a new and reliable surface-anatomy. It is greatly needed. Nor do we require to know alone the ordinary distributions; we desire also to have sketches of the variations which seem to be frequent, for while as yet nerve-supply to muscles seems to be definite and constant, that to the skin-spaces appears to vary strangely and frequently.

I have said that there was practical value in this knowledge; as thus: a year ago, if a surgeon had been asked to cut a nerve to relieve a local injury on the extremity of the dorsum of the index-finger, he would, without doubt, have cut the radial; and yet, as we now know, the median may have been equally or more to blame. Doubts of like nature would arise if the cause to be quarantined by nerve-section lay in the third finger, because sometimes that part is fed by the median, sometimes by the ulnar, at times by both. In these facts lies, as I believe, the true blame for many of the failures to relieve by nerve-sections epilepsy or tetanus when these are due to an eccentric cause. The knowledge I am seeking becomes, from this point of view, of inestimable value.

I have asked myself again and again how it is possible to know just where a given nerve is distributed—whether it chances to be normal, or one of those cases of variety which occur so often that we may well call them normal variations. There are, I think, three ways. If we freeze the ulnar, it is not difficult, as a rule, to determine by the lost feeling its area of distribution. The process is very painful, as I know to my cost. Pressure may also be used, and is more generally applicable. We can compress any of the arm-nerves until they lose power to transmit impressions, and then the area of lost feeling may be studied. This also is not a painless process, and it is not always or everywhere of easy application. In my own case I can easily trace out the distributions by passing a faradic or galvanic current through two or three inches of the nerve to be studied. I think the plan will usually answer. It gives very clear replies. Thus, a current of moderate intensity is felt only in the usual ulnar region, *i.e.*, up to the middle of the third finger, but most sharply in the ulnar palm and the little finger; made more severe, it is felt also in the third finger, and even beyond it; but a mild current surely placed in the ulnar or the median gives clearly a sense of vibratory tingling in certain spaces. As to the interpretation of the results of very severe currents I am not so sure; they seem to affect nearly all of the hand; but as to this I shall probably have more to say in future.

M. Letiévant discusses in his excellent treatise the question of neurotomy for cancer, ulcers, tetanus, neuralgia, and epilepsy, but says no word as to its use in local spasm, as blepharo-spasm, in which I have seen brilliant successes and as remarkable failures. As regards neuralgia, I have had to counsel in favor of neurotomy where the pain had a traumatic cause, but in what I may fairly call a vast experience I have never been driven to cut a nerve for common neuralgia. Anstie does not even discuss the question; and it is to be remembered that galvanism has succeeded after neural section has failed. Yet I should not hesitate to use it, because I believe that even when the cause is of known centric origin there may be good reasons why neurotomy may cure. Indeed, we ought not to fail to remember that galvanism is a peripheral application, and does win successes, even where the malady is surely centric.

As regards the influence of nerve-section on the thermal conditions of a limb, the clinical observers tell us that there is always a fall of temperature, while the physiologists say there is a rise of the thermometer; but the later observers experimented immediately after section, the others, as a rule, only after weeks or months, so that I felt free to predict that when the clinician would put himself in the same position as the physiologist, nature would make him the same answer; and this is just what my own cases have lately taught me. First, the temperature rises, and then, after a time, it falls. These constant conflicts of opinion always end in this fashion. Somewhere there has been a defect of observation, or else the stand-point whence the facts were seen has been different, and so the facts have been made to seem to vary. The case of neurotomy of the brachial plexus by Sands and Seguin is, I suspect, the first example of this operation. It is admirably related, with scarcely any defects, which can not be said of the European cases of neural section. In fact, as I have already said, the horrible confusion as to the results of neurotomy, which has so long embarrassed us, is due to observations so clumsy and imperfect that they can not be too severely criticised.—S. WEIR MITCHELL, M. D., *in Medical Times.*

The Influence of Alcohol on the Temperature of the Body.—Observers in previous years were accustomed to ascribe to alcohol the power of elevating the temperature of the human body when introduced into the stomach, being led to this conclusion by the subjective sensation of warmth perceived by the subject of the experiment and observation. Observations, however, of later date have led some experimenters to a diametrically opposite conclusion,—*i. e.*, that the ingestion of alcohol into the economy is conducive to a reduction of the bodily temperature. Many of these experiments have been made upon inferior animals; and to these too much authority must not be given, for it is of common experience in experiments upon small animals to have a marked reduction of temperature consequent upon trifling influences, and in a majority of these cases direct proof of the causation of the phenomena observed by the alcohol swallowed is wanting. In addition to this, the relative quantity of alcohol employed is so large that while the result may be of use as demonstrating the influence of alcohol upon the bodily temperature, it can not be applied to solving the question as to the use of alcoholic stimulants in the treatment of disease, where small quantities are to be administered through long spaces of time.

For these reasons Dr. Riegel disregards the results obtained from experiments upon the lower animals, and confines his attention to the data of those experiments which have been made upon men, both healthy and diseased.

He deals only with the more important modern researches upon the subject, and with those only which have been conducted with special reference to the alteration in temperature, inasmuch as he has to do, not with the special indications for the administration of alcohol, but only with its effect upon the bodily warmth.

Todd and his followers were the first among modern writers who strongly advocated the administration of alcohol in febrile and inflammatory affections. While his doctrines found many advocates in England, America, and France, in Germany they were received with a less degree of favor, due partially to the small number of experiments made to establish their truth or falsity, partly also to the variety of results reached by observers. In all the recent observations a great discrepancy of results is noticed, being, no doubt partly due to a want of accuracy and frequency in examining and recording the variations of temperature.

The principal object of Dr. Riegel's own investigations has been to note the variations of temperature consequent upon the administration of alcohol in healthy individuals, as well as in those in all stages of fevers and in convalescence. He considers that the effect of the administration of alcohol upon the temperature is the most certain criterion as to the propriety of its use in the treatment of fevers, and if, as some recent investigators have asserted, this is constantly followed by an elevation of the heat of the body, its use can only be justified in the treatment of patients in a state of collapse or of those who have been previously habituated to its employment. If an elevation of temperature consequent upon the use of alcohol can not be proven, there is nothing from this view of the case to contra-indicate its use, for it is only rational to endeavor by its timely employment to husband the forces of the economy. The argument in favor of its use becomes much stronger if it can be demonstrated that it has the power to produce a diminution of temperature, and that this power is increased by an increase in the amount administered.

Dr. Riegel's experiments number eighty-six, and in each case comparisons were made with the normal temperature of the same individual. The thermometer in many cases was introduced into the rectum as well as the axilla; and from the discrepancies sometimes observed, the former locality is regarded as the preferable one for observations of this nature. In a majority of the cases white or red wine was employed; in some, alcohol diluted to a greater or less degree. From the observations made under the above conditions upon the first class of cases—convalescents—the following conclusions were drawn: 1. Alcohol, even in moderate doses, in many cases causes a lowering of the temperature of the body. The amount of this diminution averages, as a rule, only some tenths of one degree. 2. Only exceptionally is there noticed an elevation of the temperature consequent upon the administration of alcohol; not unfrequently, at least after minute doses, there is no noticeable change. 3. The diminution of temperature in convalescents is, as a rule, less than in healthy subjects, or it may be altogether wanting. 4. In those who habitually drink alcoholic stimulants the depressing influence of alcohol upon the temperature is almost always wanting. 5. The frequent repetition of the doses of alcohol diminishes their lowering effect upon the temperature. 6. The amount of diminution of temperature is directly proportional to the dose of alcohol given. 7. The depression of temperature caused by alcohol is, for the most part, of but short duration, and the temperature soon returns to its previous grade.

These experiments, then, show that the administration of alcohol to convalescents and healthy subjects, if followed by any change in temperature, gives rise to a diminution in the bodily heat, but they do not justify the conclusion that a like result follows its use in febrile cases. To ascertain the effect of alcohol upon cases of this class, experiments were made upon patients suffering from acute articular rheumatism, typhus, erysipelas, etc., and the conclusions reached do not agree with those previously stated. In conclusion, Dr. Riegel states that the influence of alcohol, given in moderate doses, upon the temperature both in febrile and nonfebrile states, is comparatively insignificant, but if any change is produced it is more common to have the temperature lowered than elevated. But, although alcohol can not be looked upon as possessing anti-febrile powers, yet the proof that its administration does not cause any important change in the heat of the body presents us with a strong argument in favor of its use to prevent the too rapid waste of tissue in febrile affections.

The dangerous elevation of temperature must be combatted by the use of cold and the other means at our command. Alcohol meets the second indication, to prevent waste of tissue and favor reparative action.—*Medical Times.*

Prophylaxis of Scarlatina.—Dr. W. F. Dickinson (*Medical and Surgical Reporter*) writes: During a recent epidemic of scarlatina in my neighborhood, in which the prevailing type of the disease was that of the simplex, yet a number being anginose, and two exhibiting symptoms of a malignant type, one of which proved fatal on the third day, I was, as you may suppose, importuned to prevent by prophylactic measures the disease from spreading among the families as yet unvisited, several of whom resided in close proximity to that in which the fatal, malignant case occurred. I accordingly began by sprinkling the floors with carbolic acid, placing large plates containing the acid upon the tables in the different apartments, and one family, having a number of children, in addition to the above measures placed carbolic acid in the heater, so as to insure its thorough diffusion throughout all the apartments of the house. I also prescribed for all the children unaffected with the disease small doses of potassæ chloras, to be given three times a day. These measures were resorted to, as I frankly informed them all, with very little hope of their efficacy; but, judge of my surprise, when, as time passed on, not another case appeared in any of the families who had resorted to these means. One family, however, being in indigent circumstances, and living somewhat secluded from the others, by an oversight on my part, was overlooked in these precautionary measures; the disease prevailed in that family, all the children having it, and one in a malignant form. In regard to the measures instituted for the prevention of the disease I have no theory to offer, but the fact is certainly remarkable and worthy of note.

The Premonitory Symptoms of Insanity.—In his Croonian lectures before the Royal College of Physicians, London,* Dr. Radcliffe alluded to certain conditions of mental habit, which might be considered as precursory of mental alienation. His intelligent observations have been so thoroughly corroborated in certain cases that have fallen under my notice, that I propose to go over this field somewhat more in detail, and to add to it other facts which are worthy of further investigation—especially those relating to the early ophthalmoscopic appearances. The first appreciable symptoms of mental derangement are invariably announced by one or more of the following conditions:

1. Self-conceit.
2. Misanthropy.
3. Distrust.
4. Impulsiveness.

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* Lancet, June and July, 1873.

5. Melancholy.
6. A disordered fancy.
7. Delirious excitement.
8. Disturbances of the senses.
9. Untruthfulness.
10. Moral cowardice.
11. Instability of purpose.

The ocular appearances which I have found co-existing with one or more of the preceding, and which have been followed in due course of time by the actual outbreak of the disease, have been:

1st. Slight anæmia.

2d. Slight hyperæmia.

3d. Instability of eye movement, with increased tension (intra-ocular).

4th. Intermittent irregularity in the supply and distribution of the retinal vessels.

Fresh interest is added to the consideration of these points, from the fact that the nature of the delusion may be generally predicated upon the character of the incipient symptoms, and that the force of the disease may be turned aside, entirely or in part, by a proper attention to the necessities of the case. The symptoms may occur separately, or two or three of the groups may come into conjunction—rarely, if ever, do we find a case in which they are all combined.

It is generally maintained that the ophthalmoscope reveals nothing abnormal in the intra-ocular structures, in the earliest stages of insanity—nothing which may not be a normal variation of the healthy fundus, or a constant symptom of numerous other brain lesions. This in so far as it relates to anything absolutely pathognomonic, is, in the present infancy of our research, quite true; but I do unhesitatingly affirm, that there are certain conditions of the fundus oculi, which, in connection with the concurring mental symptoms, would justify a diagnosis of approaching alienation. I have noted the one or the other of these conditions in so many cases, all developing into confirmed insanity, that I am persuaded of their very general presence.

As these appearances have not, to my knowledge, been particularly noticed, in this connection, I will take up their consideration at once, and then, should space permit, pass on to a brief review of the mental phenomena.

1. *Slight anæmia* was observed in ten cases, with the following mental phenomena: in three patients there was misanthropy; in five, great dejection of spirits and melancholy; and in two, suspicions. The alienation generally assumed the form of acute melancholia. The arteries were diminished in size, and the normal proportion of bulk between them and the veins was destroyed; they did not exhibit the same amount of tortuousness as in the normal eye; the discal vessels were with difficulty made out. These symptoms become more prominent as the disease advanced.

II. *Slight hyperæmia.* This condition is characterized by an over-supply to the intra-ocular vessels. Presenting this form were fifteen patients—six had delirious excitement; two, instability of purpose; three, melancholy; three, distrust; one, misanthropy. Developing: six, acute melancholia; four, acute mania; one, folie circulaire; four, mania with exaltation. The disc was of a more rosy hue than normal, its vessels slightly enlarged, and new ones, apparently, appearing; the vascular reticulum of the fundus covered a large extent, while the veins were swollen and tortuous. As the disease became established, the above became more and more marked, and finally resulted in an *intense congestion of disc and retina.*

III. *Instability of eye movement, with increased intra-ocular tension.* Three cases were recorded, all characterized by religious fervor, and developing into acute melancholia, which in one case was followed by an attack of maniacal delirium. There was rotary nystagmus in two cases and horizontal in one. The oscillation was variable, being increased by any nervous shock, or by prolonged reading. There was slight increase of intra-ocular tension in both eyes; slight hyperæmia was visible in the fundus, but as one of the patients was menstruating at the time, it might have been due to that cause. In that case, characterized by horizontal nystagmus, it is supposed that the lesion was due to a commencing cerebro-spinal sclerosis, as some of the other symptoms seem to point to that disease.

IV. *Intermittent irregularity in the supply and distribution of the retinal vessels.* Two cases came within my notice—one with great self-conceit, resulting in melancholia, and masturbation, the other in the status epilepticus. The intra-ocular appearances were exceedingly peculiar. At one time the fundus would be quite normal, while its entire character would become changed during the same examination. The retinal vessels, running at first in a natural direction and of a healthy size, would suddenly fade away, to reappear, distended and tortuous; the least excitement was sufficient to induce the change. In neither of the cases could I discover any indications of abnormality in the heart's action, save the usual feebleness of general anæmia.

That some intra-ocular change, more or less evident, must precede every attack of insanity, announcing itself as the first appreciable symptom, seems to me probable. Every lesion of the brain, however obscure in its pathology, must appeal to a disturbed vascular supply for its solution, and the first notice of this change will be given us by the ophthalmoscope. What the chemico-physiological change may be, by which the different forms of insanity are superinduced, is a question as yet beyond our ken, and hence we can apportion to no form an exclusive and particular set of intra-ocular appearances, but from extended observations we can generalize those conditions which are present in certain states of alienation, and by combining these with the mental phenomena, we can predict the result.

It is my belief that many appearances have been reckoned among the variations of a normal fundus, which are properly the forerunners of commencing disease, and that owing to this latitude of description, many have fallen into the grave error of ignoring slight abnormalities of vision.

The mental phenomena anteceding the disease, will find ample corroboration in the experience of those who have made the study of insanity a specialty. The exaggeration of a vice, or a natural bent of mind, the development of a taste heretofore unrecognized, or the complete change of a virtuous, honest life, into unreliable, unwholesome channels, are indicative of great cerebral disturbance, and demand the closest watching, with the most circumspect treatment. That some of these changes, oftentimes of the slightest appreciable nature, *do* precede every case of alienation, I have no reason to doubt; and looking at mind as the outcome of cerebral action, rather than as a manifestation of an unknown entity—neither matter nor spirit, but possessing somewhat akin to both—this precedence of the disease by the heralds of disturbed function would appear to be eminently probable.

From being an affectionate person, kindly disposed to all, the patient may, at first, manifest notable irritability of temper when reproved or counseled by parental authority; this gradually grows into dislike of restraint, of association and connection; then, becoming pure misanthropy, it includes the whole family circle; it ignores the closest ties, and even may extend to the human race in general. Combined with this, there is often evinced a suspicious and distrustful disposition, as if they of the household were plotting against the patient's happiness, thus building up a delusion which inevitably results—a delusion or fear of being killed or poisoned.

Not until this evidence has assumed potential form is the physician consulted, and then the disease must be left to run its course; whereas, the condition of cerebral erythism, which was the essence of the subsequent illusion, might have been dissipated.

In other cases, the person is conscious of a manifest want of *self-control*, of *voluntary power*—he can not *will* to do that which he desires, and must be *led* like a child to its accomplishment. This want of control, carried to its greatest extent, constitutes *moral insanity.* A singular manifestation of this weakness was once noticed by me, in a patient exhausted by hysteria, and in whom, subsequently, acute mania obtained; a fly alighted on his forehead, when the right arm was raised, almost unconsciously, to drive it away, but ere it was half-way to its journey's end, the question arose in the mind of the patient, whether the left arm would not answer as well—the right arm dropped, and both arms remained passively at the side, while the fly remained undisturbed; the patient, unable to solve that stupendous question of *free will*, could not exert his brain power sufficiently to give the necessary stimulus to either arm.

I have seen patients whose lives had been characterized by stern integrity, unimpeachable honor, and great moral fortitude, suddenly become less watchful in their statements, less circumspect in action, less a "hero in the strife." Little by little, as the cerebral changes received no check, the old self seemed to fade away, and a new creature—unreliable, untruthful, and full of moral cowardice—to obtain sovereignty. Others will assume the most inconsistent and immoral views of the great social laws, sustaining themselves by close logic and classic reasoning; while others will assume as a reality that which is but the fictitious image of their own imagination. And so on through the series, we meet with cases of confirmed insanity, in all which we may trace the prodromata to some of these changes—often overlooked, so stealthily do they creep on.

In the offspring of neurotic families, and in those where a powerful *neuriasis* is ever calling out strange fancies, or unusual modes of thought, we should especially be on the watch for the least indication—that by healthy association and intelligently directed treatment we may abort the disease.

With Dr. Radcliffe's recently propounded views of mind I can not sympathize. Do what I will, I can not logically enter into that subjective introspection which hypothecates a spiritual entity as presiding over all forms of cerebral action — which from a superexalted stand-point seeks for a First Cause in the wondrous inter-relationship of a scientifically ordered, intelligible existence—*matter*, with an unknown, unfathomable, suppository ideal—*spirit.* To me the wondrously endowed, chemically organized brain matter, susceptible of infinite variety and change, is a more scientific explanation of mind, the result of these delicate physiological actions, and just as beautiful, as the more vague and intangible, spiritualistic view. Neither in memory can I recognize anything to controvert this opinion. That a measure of memory exists in the thing remembered, is to me most improbable, as daily evidences occur wherein lapse of time is sufficient to efface entirely, or in part, the integrity of this faculty, by creating great external changes.—H. B. BIGELOW, *Boston, Mass.*

Editorial.

To the Readers of the Lancet and Observer.—One and all, we wish you a happy New Year. To-day the LANCET AND OBSERVER comes to its readers under new auspices. For more than a quarter of a century it has been the organ of a large portion of the medical profession, and its many readers know how well it has performed its mission. It will in the future be conducted as a first-class independent medical journal, free from all entangling alliances. We have no ax to grind, no special school or clique interest to advocate or advance. We will endeavor to keep free from personal discussions, devoting our labor to the advancement of medical science. Each number will contain original contributions from men of eminence in the profession, hospital reports, proceedings of societies, and the latest medical news of the day, keeping up with the times in every particular, giving our readers each month something of value and interest.

The pages of the LANCET AND OBSERVER will be kept open for contributions by its readers, giving to those who favor us with articles the widest possible latitude consistent with propriety, not holding ourselves responsible for the opinions expressed by them. Our aim will be to publish a journal that will be wanted by every member of the profession because of its merit.

With feelings of sadness we say good-bye to our old friend, Dr. E. B. Stevens. May you live long, be prosperous and happy in your new location. The readers of the LANCET AND OBSERVER will expect to hear from you frequently.

PROPHYLAXIS.

With a sense of satisfaction we contrast the science of medicine to-day with what it was but a few years ago, especially in regard to preventable diseases. The early writers hardly recognized prevention as a part of the science of medicine, nor in fact until the days of Jenner, do we hear much of prophylaxis. Medicine was then an encounter with acute diseases, in which little attention was paid to the diathesis or constitutional peculiarities of the patient, or the cause of his illness. What a change has been wrought. Every year we see an increased tendency on the part of physicians to regard particular attacks of disease as the outgrowth or manifestation of some particular predisposition exhibited in persons living under certain physical or moral conditions.

Our attention has lately been drawn to an epidemic of typhoid fever, which prevailed in a limited district of London. The physicians at once proceeded to investigate the cause that had produced the disease, and unerringly traced it to the use of milk from a certain dairy. Nor do we forget that after the city of New Orleans was put in good sanitary condition, yellow fever ceased to exist there, as in years past, and the same may be said of other epidemic diseases. Last summer, although cholera seemed to be carried from there to the more northern cities, it did not prevail there in epidemic form.

Our sympathies were drawn out toward the plague-stricken town of Shreveport during the past season, where hundreds of persons died out of a population of a few thousand. Nor did we wonder at the fearful rate of mortality after reading a statement that early in the summer a steamboat loaded with Texas cattle sank at the wharf. Many of the cattle being drowned, their carcasses were skinned and left lying on the bank of the river to decompose in the hot sun, and after yellow fever broke out among the people, we are almost astonished that any escaped, except by flight from the place. Witness the frequent stamping out of epidemics of small-pox by means of universal vaccination; every physician knows of such instances.

So with Asiatic cholera to a very considerable extent. Cities and villages that have and enforce good sanitary regulations, if visited by the disease at all, suffer in a comparatively light degree with those who neglect proper precautions. So eminent a man as Dr. Jenner, of London, states that " the death rate of children in that city under two years of age is largely swollen by the existence among them of the disease of rickets, although rickets is not mentioned as a cause of death in the register-general's returns, deaths really due to rickets being attributed to other diseases." He states further that " not one child ought to die from rickets itself, and death from its consequences ought to be extremely rare: and yet the mortality from rickets, from diseases which would not occur but for the pre-existing rickets, and from diseases which would be trifling but for the co-existing rickets, is enormous. Laryngismus stridulus, chronic hydrocephalus, teethings, convulsions, atrophy, disease of the spleen and liver, remittent fever, tabes mesenterica, spinal disease, bronchitis, diarrhea, measles, whooping cough—these are some of the names under which deaths really due to rickets, appear in the register-general's returns."

Thus to the pre-existence of strumosis and tuberculosis, according to the same authority, "in a large proportion of cases, is due the deaths in scarlet fever, measles, and whooping-cough."

Is there not much in the above to suggest the prevention of a great amount of suffering and disease by the use of proper hygienic measures? And what is true in regard to London, may be said to some extent of all our large cities. We are rejoiced to see boards of health taking hold of these matters, and enforcing sanitary laws and regulations where they are most needed; they have a great work to perform, and it is the duty of physicians to give them aid and advice where and whenever needed. Much is yet to be done, especially in regard to enforcing the proper construction of public buildings, in seeing to their ventilation, and especially of our school-houses, where children are compelled often to live six hours a day in a vitiated atmosphere, frequently causing disease. We would also direct attention to the studies of the children, to see that they are not required to perform too great an amount of study within a given period, thereby inducing disease. We believe there is a tendency in many of our cities and towns, to push the children beyond their physical ability, and every year parents are obliged to withdraw their children from school on that account.

To some extent, the country and village practitioner is called to watch over the hygienic conditions of the people among whom he lives, without the aid of a board of health. If typhoid fever prevails, he should at once seek for the cause; so with any other prevalent disease in his location, always remembering that as physicians we have to deal with diseased conditions as well as disease.

Cincinnati Hospital.—Messrs. B. F. Brannan and John Carlisle have resigned their positions as members of the board of trustees, and Col. L. A. Harris is appointed to fill one of the vacancies; also, Dr. Thos. Wood has resigned as a member of the surgical staff.

The article on "Some Facts in the History of Asiatic Cholera," by Prof. Clendenin, will be continued in the three next numbers of this journal.

New Remedies.

By J. S. UNZICKER, M. D.

Thapsia Plaster.—This plaster is made of the *Thapsia Garganica*, which grows in abundance on the plateaux of Algeria and has been recently introduced into therapeutics, and will no doubt render important services in the art of healing.

"It owes its irritating properties to a peculiar resin contained in its roots, rendering it a powerful derivative, whose action, on account of its form and consistence, may be graduated at will and limited to the very spot on which the physician wishes to obtain the effect. This result is impossible with croton oil, which, on account of its fluid state, spreads and acts on a larger space than desirable."

From the simplicity of its use it will no doubt gain favor with the profession, and be adopted in preference to croton oil or tartar emetic ointment, over which it has great advantages. Its revulsive action manifests itself by a miliary eruption more or less abundant, according to the time it has been applied. When the eruption disappears in a few days, the plaster may be reapplied, and thus a counter-irritation kept up for any desirable length of time.

Capsicum Plaster.—This plaster has been lately introduced in Philadelphia by Mr. Charles Shivers, well known as a progressive pharmacist and extensive manufacturer of a large series of excellent plasters. The capsicum plaster is highly spoken of by many who have used it, in chronic rheumatism and other diseases, where a heat-producing irritant is necessary.

Married.—Conner—Johnston—On Wednesday, December 17th, by the Rev. Richard Gray, Dr. P. S. Conner to Miss Julia E. Johnston, both of this city.

Obituary.

PROF. AGASSIZ.

With regret we announce the death, on the 14th of December, 1873, of this world-renowned scientist. Prof. Agassiz was born in Switzerland, May 28, 1807. Enjoying early educational advantages, he had hardly reached manhood when he became proficient in science, studying medicine at Zurich, Heidelberg, and Munich—at the latter place taking the degree of doctor of medicine. After graduation, he devoted his time to the special study of comparative anatomy, publishing numerous works on his investigations in that department. In 1846 he came to the United States, the same year delivering lectures in the Lowell Institute. In 1847 he was appointed professor of zoology and geology in the Medical School at Charleston, South Carolina, where he remained two or three years. Afterward he was engaged in making and arranging collections in natural history. In 1851 he explored the State of New York, and in 1852 was appointed professor of comparative anatomy in the Medical College at Charleston, South Carolina. In 1857 he was appointed to the professorship of zoology and geology at Cambridge, Massachusetts. His life was a busy one, and the scientific world knows how well and faithfully he accomplished his work. During the past year his energies had been taxed to their uttermost, in organizing a school of natural history on the island of Penikese, which had already proved a success. A brief account of late illness is from the Boston *Advertiser* of December 12th, two days before his death:

"The immediate occasion of Mr. Agassiz's illness seems to have been given last Saturday, when he went to his museum and worked for some time in a very hot room, causing him to perspire freely. He was soon after taken ill, and had to be carried to his home, about a quarter of a mile distant, by one of his associates. Since that time he has grown rapidly worse, and his friend, Dr. Brown-Sequard, was summoned from New York on the same day of the beginning of the professor's illness. He intended to return the next morning, but the seriousness of the case induced him to remain, and he is still at the bedside of his patient. Dr. Wyman, of Cambridge, has also been in attendance, and all that medical skill can do will doubtless be done. It is a relief to be able to announce that at a late hour last evening the announcement of the bulletin on the professor's door was 'more favorable.'"

WN. C. BRACKEN, M. D.

The following is the report of the Committee on Obituaries at last session of the Central Ohio Medical Association, held at Worthington, October 16th. The report was received and adopted:

Five years have passed since the birth of our organization, five years of mutation and development; and during all those five years the Central Ohio Medical Society has received but one visitation of the destroyer of man. One true and noble fellow has been released from the labors and conflicts of life earthly, and passed to the home and rest of the good and the just.

William C. Bracken, M. D., died at his residence, in Jersey, Licking county, Ohio, October 21, 1872, aged nearly forty-nine years.

Dr. Bracken died of organic disease of the heart. He had long been a sufferer with what had been recognized as lesion of the lungs, but later, organic disease of the heart unmistakably developed, the lung affliction being then regarded but secondary or symptomatic.

The subject of this sketch was the son of Henry C. Bracken, a much respected and affluent farmer of Canonsburg, Pennsylvania, and was educated at Jefferson College of that place. His medical education he received at Jefferson Medical College, Philadelphia.

He studied medicine with Dr. Heniott, and commenced practice in Noblestown, Pennsylvania, in 1849, where he remained through the winter of '56, moving to Ohio in the spring of '57, and located in the town of Jersey, Licking county, where he remained, bearing worthily and gracefully his professional armor in an extensive field of varied practice, until by the invasion of the fearful malady he was shorn of his strength, when he yielded patiently and with the fortitude of a Christian faith to the behests of man's nature.

Your committee offer the following resolutions:

Resolved, That we have learned with deep regret and sadness of the death of our fellow, Dr. William C. Bracken.

That in the death of Dr. Bracken, this society has sustained the loss of one of its early, most able, and industrious members—one whom we had not only learned to respect and esteem, but love.

That in our sadness we call up the cherished memories that he was recognized not only as a faithful, successful, and skillful physician and surgeon, the good citizen, but truly nature's nobleman—an honest man.

That we hereby express to the widow and family of the deceased our full appreciation and sincere sympathy in their affliction.

That the foregoing resolutions, giving the action of this society, be transmitted to the widow of the deceased, and that the same be published in the public journals and in the Cincinnati LANCET AND OBSERVER, and that the secretary cause the same to be done.

C. P. LANDON,
T. B. WILLIAMS, } *Committee.*
S. W. RANNEY,

The Temperature of the Sexes: an Indication of Development.—Under this caption Dr. J. Stockton-Hough has published a very valuable paper, showing the most extensive researches in biology. He tabulates his conclusions as follows:

1. That males have, as a rule, from the beginning to the end of life, a higher temperature and a less frequent pulsation of the heart than females, varying, nevertheless, according to temperament, constitution, age, and condition of health.

2. That children at birth, and for a short time subsequently, have a high temperature, which, though slightly lower than that of an adult, nevertheless slowly and gradually declines to a certain point until about the sixth year of age is reached, after which it gradually increases until developmental maturity is reached, when it gradually and slowly declines again as old age (second childhood) advances.

The pulsation of the heart follows just the opposite course, being most frequent when the temperature is lowest, and least frequent when it is highest.

3. That males appear to have a greater variation in temperature than females, thus agreeing with their greater variation in stature and many other peculiarities.

4. From all of which we conclude that the woman approaches more to her condition as a child than the man does, and is consequently less highly developed.—*Phil. Med. Times*, *Nov.* 8, 1873.

Reviews and Notices.

Diseases of the Ear, including the necessary Anatomy of the Organ. By A. D. WILLIAMS, M. D. (formerly Lecturer on Otology in the Miami Medical College). St. Louis, Missouri. Illustrated with numerous wood-cuts and one lithograph. Cincinnati: Robert Clarke & Co., 1873.

Practical Treatise on the Diseases of the Ear, including the Anatomy of the Organ. By D. B. ST. JOHN ROOSA, A. M., M. D., Professor of Diseases of the Eye and Ear in the University of the City of New York, etc. Illustrated by wood-engravings and chromo-lithographs. New York: William Wood & Co., 27 Great Jones St., 1873.

Somewhat singularly, the only two American works of any importance treating of diseases of the ear have appeared almost at the same time. Above we give the titles of these two works. So too while we have these works of Dr. Williams, of St. Louis, and Dr. Roosa, of New York, presented to us so nearly at the same time, we are somewhat surprised to note the similarity of outline and plan, notwithstanding the distinct difference of these two authorities in many respects.

Dr. Williams has been somewhat familiarly known to the readers of the LANCET AND OBSERVER for the past year or two, as a contributor of articles on diseases of the ear. These are all incorporated in the present volume, together with a systematic outline of the anatomy of the ear structure and its diseases and therapeutics. The book is beautifully printed by Robert Clarke & Co., and abundantly illustrated in all its details; so that the physician or student desirous of treating these diseases, heretofore so troublesome, will have in this book of Dr. Williams a good and satisfactory guide.

Dr. Roosa has pursued very much the same plan as that adopted by Dr. Williams. His anatomical studies are similar, as also his illustrations; so that the physician, in either case, will find a desirable authority. We feel greatly pleased that such reliable and certainly superior text-books on these obscure diseases have appeared in this country: we feel sure no European text-books excel them, even if they equal. E. B. S.

The Transactions of the American Medical Association. Instituted 1847. Vol. XXIV., 1873.

To those who keep up their interest in the American Association, this annual will come as a pleasant souvenir. It contains the usual historical summary of transactions, proceedings of sections, and regular reports.

So far as the papers are concerned, we can scarcely find any worth special notice, though all the contributions are certainly respectable, if not more than that. Another point worthy of comment is the condensed shape in which the volume appears. If not greatly worthy, it is certainly not greatly bulky in extent. One of the most readable papers in the volume is that on spontaneous generation, by Prof. J. B. Hough, of the Miami Medical College. Those who wish the volume or wish to keep up their sets, should communicate with Dr. Caspar Wistar, of Philadelphia.

E. B. S.

Pharmacopœia Germanica. The German Pharmacopœia, translated by C. L. LOCHMAN, with an appendix explanatory of the French Metrical System, and tables of weights and measures. Philadelphia: David D. Elder & Co., 1873.

We think pharmaceutists generally will be very glad to receive the little book before us. The truth is, as we believe, that the time will come, as it should speedily come, when we will have a general pharmacopœia recognized as uniform authority by all civilized nations. Until that desirable time comes, however, there will continually be prescriptions presented of German and other authority, outside of our own standard. After the establishment of the German Empire, the present Pharmacopœia was compiled, and now represents all of German authority. The work of translation by Dr. Lochman has been performed with intelligence and fidelity.

For sale by Robert Clarke & Co. Price $2.25. E. B. S.

Lectures on Clinical Medicine. By A. TROUSSEAU, late Professor of Clinical Medicine in the Faculty of Medicine, Paris, etc. Translated from the third revised and enlarged edition, by Sir John Rose Cormack, M. D., F. R. S. E., and P. Victor Bazin, M. D. Complete in two volumes. Philadelphia: Lindsay & Blakiston, 1873.

Trousseau is accepted very much in French medicine as the same grand and eloquent teacher, as we have so long accorded to Watson in English medicine. Watson is the delightful, readable lecturer. We find much of the same attractive and charming qualities in Trousseau as the wonderful French clinician. The first translated edition of this great work was presented at a price that almost placed the work out of reach to the general class of medical readers; but we are glad to notice that the American publishers have found it proper, or safe, to present this new edition at a price within the reach of almost every medical reader, these two large and handsome volumes being afforded for $10. In addition to the beauty of execution, paper, press-work, etc., we observe that the present edition embraces much matter not included in the original edition. And besides these additions, much of the old matter has been carefully recast, and some entirely rewritten.

For sale by Robert Clarke & Co. E. B. S.

History of the Conquest of Mexico, with a preliminary view of the ancient Mexican Civilization and the life of the conqueror, Hernando Cortes. By WILLIAM H. PRESCOTT. New and revised edition, with the author's latest corrections and additions. Edited by John Foster Kirk. In three volumes. Vol. I. Philadelphia: J. B. Lippincott & Co., 1874.

In a previous number of this journal it was editorially noticed that the house of Lippincott & Co. had commenced the issue of a new and elegant edition of the complete works of Prescott. These volumes give us, as heretofore noticed, the history of Ferdinand and Isabella. Before us we have Vol. I of the Conquest of Mexico. No more delightful reading can be entered upon by the physician than these historical romances of Prescott, and the style of their execution makes than a thing of beauty for any gentleman's library.

For sale by Robert Clarke & Co. Each vol. $2 25.

E. B. S.

On the Mechanical Treatment of Disease of the Hip-joint. By CHARLES FAYETTE TAYLOR, M.D.

A monogram of practical value to the practitioner. Omitting a discussion of the pathology of the disease, he proceeds at once to give what he has found, by long observation, to be the best method of procedure in disease of the hip-joint, giving a full and complete description of the apparatus used by him in his course of treatment, insisting on the early diagnosis and immediate medical attention being given to this unfortunate class of sufferers.

For sale by Robert Clarke & Co. Price $1.00.

THE CINCINNATI

LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.

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Original Communications.

Art. I.—Injuries of the Eye by penetrating foreign Bodies.

By S. C. AYRES, M. D., Cincinnati, Ohio.

The importance of a foreign body lodged in the eye can not be overestimated. It is an accident which frequently happens, especially in our manufacturing towns, and which often ends fatally to the sight of the injured eye as well as to its fellow. Among the laity there is great ignorance as to the remote danger from such an accident; and even physicians, intelligent on other subjects, act with no judgment when called on to treat such a case. There are a few prominent symptoms indicative of the presence of a foreign body in the eye which are easily recognized, and which leave the surgeon in no doubt as to what course he should pursue. The history of the case is often very unsatisfactory, for patients will frequently declare that the eye was injured by some foreign substance which struck it and glanced off. At other times it is injured by a very minute chip of metal, which inflicts scarcely any pain. When an eye is entirely lost, and when there are symptoms of sympathetic irritation in the sound eye, the surgeon is justified in giving the patient the benefit of the doubt and removing the offending organ. It is quite surprising how often eyes are injured by fragments of gun-caps In the thirteen cases which I propose reporting, seven of them were injured in this manner. I think this is owing partly to carelessness in their use, as the cases will show; and partly to the use of inferior qualities of gun-caps. Many in the country buy the cheapest articles they can. In them the copper is very thin and readily flies off when struck by the hammer of the gun. This is not so likely to be the case when the caps are made heavier, for then they only flatten out and are not so liable to break to pieces.

CASE I. *Piece of gun-cap in the eye twenty-three years; attacks of sympathetic irritation; formation of bony growth within the eye; enucleation.*—Mr. J. S. F., æt. 50, twenty-three years ago lost the left eye by an injury from a piece of gun-cap. Vision was not lost immediately after the reception of the injury, but he retained some perception of light for three months afterward. The eye remained comfortable for about seven years, when he accidentally struck it with his hand, and it became painful. It remained in a very irritable condition for several weeks. It was tender to the slightest pressure, but there was no development of sympathetic inflammation in the right eye. The inflammation gradually subsided, and the eye assumed its previous condition. Two years afterward he had another attack of pain and inflammation, which laid him up for several weeks. From the time of the second attack to the present time the eye has occasionally given him trouble. The last attack commenced five months ago, and during that time he has been confined to the house, entirely unable to attend to business. He is weak and debilitated from long suffering, and his digestive organs deranged from the use of anodynes to allay pain. There is great photophobia in the right eye. There is no ciliary injection or iritis, but the eyeball is slightly tender to pressure, and there is a high degree of subconjunctival injection. The left eye is tender to the slightest pressure, and there is lachrymation upon exposure to light.

Immediate enucleation of the offending organ was advised, to which the patient willingly assented.

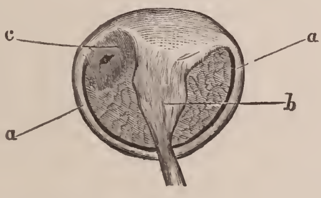
April 2, 1873. I enucleated the eye without any unfavorable occurrence, and the wound healed kindly.

Patient returned home in a few days, feeling much better, and the sympathetic irritation of the right eye quickly subsided.

Sectio Oculi.—The globe is somewhat smaller than natural, and especially in its antero-posterior diameter, and has a quadrangular shape. It is very hard upon pressure, and the presence of bone within the eye readily recognized.

The cornea is opaque and flattened. A vertical section was made through the cornea and sclerotic. The eye contained a quantity of reddish-brown fluid. The anterior chamber was obliterated, and the iris very much atrophied, was in direct contact with the cornea. The lens had been entirely absorbed. Upward and outward, and continuous with the ciliary body, was a mass of firmly organized lymph, about as large as a pea. The retina was detached in the shape of a funnel, and adherent only at the optic papilla and the ora serrata.

Fitting the concavity of the globe, and attached to the papilla by the optic nerve, which perforated it, was a thin bony shell, 7‴ in horizontal and 5‴ in vertical diameter. It extended forward almost to the ora serrata. It is quadrangular in shape, corresponding with the shape of the globe. It is very thin, being at no point thicker than heavy letter paper. Its edges are irregular and serrated, and marked with projections of bony spiculæ.



a. A bony formation in the eye.
b. Detached retina.
c. Mass of lymph, with foreign body imbedded therein.

In the mass of lymph occupying the ciliary region was found a small piece of gun-cap, which had been lying there for twenty-three years.

CASE II. *Piece of gun-cap in the eye seventeen years; occasional attacks of sympathetic irritation; enucleation.*—H. B., æt. 49, left eye lost seventeen years ago by piece of gun-cap. It penetrated the inner and lower quadrant of the cornea, and lodged in the edge of the iris near the ciliary body. He has had attacks of pain in the eye occasionally, but in the intervals it was quite comfortable.

During the past few years the attacks have been more frequent and more persistent, and his right eye has suffered more each time. It is now quite irritable, and he can not use it long at a time, although there is no injection in the ciliary region.

Eye enucleated April 17, 1872. The foreign body was found as above stated. The vitreous was liquified and of a brownish color.

The case is interesting, as illustrating the length of time a foreign body may remain in the eye without exciting severe sympathetic ophthalmia. The attacks were gradually getting more severe, and he would, in all probability, have lost the sight of the sound eye in one of them, had the injured eye not been removed.

CASE III. *Piece of gun-cap in the eye three months; severe pain and sympathetic irritation; enucleation.*—J. T., æt. 36, last February (1873), while sitting with his gun across his knees, accidentally exploded the cap, a part of which flew off and penetrated his right eye. He could see some with it until April, when it became entirely blind. Since then he has had severe pain in the eye and circumorbital region. He has suffered so much that he has been unable to work part of the time. The tension of the eyeball is increased, and the iris is bulged forward in direct contact with the cornea. The sclerotic in the ciliary region is intensely injected, and the globe is very tender to pressure.

Directly inward from corneal margin is a horizontal cicatrix, one line in length.

Eye enucleated May 30, 1873. The next day he expressed himself entirely relieved from the severe pain from which he had been suffering so long. He made a rapid recovery, and has had no return of the pain since.

Sectio Oculi.—The eye was filled with a thin milky white fluid, containing abundant flocculi of lymph. The lens was entirely absorbed.

Corresponding to the external cicatrix in the sclerotic was found a mass of plastic exudation in the ciliary region, imbedded in which was seen the piece of gun-cap. It consisted of about one-third of an ordinary cap. The retina was completely detached and pushed forward in a funnel shape in consequence of exudation behind it.

Unfortunately for him the vision of the left eye was only $\frac{15}{200}$. There was a large patch of atrophy in the region of the macula lutea, the result of an attack of choroido-retenitis twenty years ago.

CASE IV. *Injury by a piece of gun-cap three years ago; secondary glaucoma; severe pain; enucleation.*—J. G., æt. 40, gave the following history: The left eye has been blind three years from an injury received by a piece of gun-cap. It has been extremely painful for some time past, and he is anxious to have it removed. It is abnormally hard and very tender to pressure. I enucleated the eye, and an examination showed the following condition: Globe not reduced in size. Anterior chamber obliterated, cornea opaque and its vertical diameter diminished. There is a cicatrix in the lower portion of the sclerotic about 1‴ from the corneal margin. The lens was swollen and hard, the vitreous liquified, and the retina detached and funnel-shaped. The foreign body could not be found. About eight months ago we examined his eye and found a detachment of the retina, but as there were no urgent symptoms requiring surgical interference, we advised him to let it alone.

The right eye, which was beginning to show symptoms of sympathetic inflammation, soon recovered.

CASE V. *Shot lodged in the eye; enucleation next day.*—C. C. M., æt 28, while quail-shooting, December 9, 1873, accidentally received a charge of shot in his face, several of them burying themselves under the skin. Unfortunately one shot struck the left eye. Vision was lost immediately, and the eye filled with blood. Immediate enucleation was recommended, to which the patient assented. December 10, chloroform was administered, but its effects were so unpleasant that it was deemed unsafe. After he had recovered from its effects, Dr. Williams proceeded to perform the operation of enucleation without chloroform.

An examination of the eye afterward showed that the shot had penetrated the sclerotic about 1‴ from the inner margin of the cornea, and had almost perforated the sclerotic immediately opposite its point of entrance. There had been an extensive hemorrhage into the vitreous. He made a rapid recovery, the wound healing up without suppuration.

CASE VI. *Piece of gun-cap in eye nine months; severe pain; enucleation.*—B. McC., æt. 39, right eye injured nine months ago by a piece of gun-cap, which penetrated the sclerotic in its inner and lower quadrant about one line from the cornea. He has suffered more or less all the time since the eye was lost. The ball is shrunken, and there is a marked depression of the sclerotic in the region of the injury. His left eye is very tender, and he is unable to do any kind of work.

Right eye enucleated May 14, 1872. Upon examination of the eye a large mass of lymph was found intimately adherent to the ciliary body, imbedded in which was discovered the piece of gun-cap. The vitreous was liquified, retina detached, and lens absorbed.

Art. II.—Case of Amputation of Middle Third of Thigh for Caries and Necrosis.

By C. SHRIVER, M. D., Bethany, W. Va.

C. T. Dow, æt. 14, was injured in November, 1872, on the ice, by coming in collision with a fellow-skater, and was knocked down, the force of the blow or fall being received at or a little below the inner tuberosity of left tibia. Pain was very great for a short time, but subsequently continued skating for about an hour. He walked home, the distance from the place of skating, being about one mile from his residence, without complaining or even noticing any pain. Three days after receiving the injury, I was called to see him. Found him in great pain in the posterior upper tibial region; pain of a grinding character, but no perceptible swelling, but some heat in the limb. Prescribed the liniment chloroform, and on visiting him the next morning pain was somewhat relieved, although the preternatural heat continued, with some swelling, but no redness. Prescribed a saline cathartic internally, and the limbs to be enveloped in a poultice of powdered flaxseed and powdered slippery elm bark. At next visit there was considerable swelling; poultice was continued. On the tenth day after his receiving the injury, I detected fluctuation on the inner side of the limb, four inches below the knee-joint. I cut down, and about one pint of pus was evacuated, and pain was consequently relieved. The fistula continued to discharge large quantities of pus. On the 15th day after the injury I opened another abscess near the spine of the tibia, about the middle third, and evacuated a large quantity of pus and shreds of disintegrated tissue. On the 18th day after the injury another abscess was incised nearly opposite the orifice of the first. On the 22d day another was opened on the inner side of the limb, three inches above the malleolus, and at this time all the openings were discharging pus largely, and these abscesses continued forming in different parts of the leg, until there were ten openings. On the 10th of February, the patient was becoming very much emaciated, so that I think a safe estimate would be, one and a half pints of pus discharged daily. I came to the conclusion that my patient could not survive the constant drain but a very short time, if an operation was not performed. On the 22d of February, 1873, I determined to operate for necrosis, or amputate, as the case might determine. After the patient was chloroformed and on the table, I began by making a transverse incision three inches below the knee-joint, and enlarging it by a longitudinal incision, and examining with my finger I found that the entire head of the tibia was much diseased, the entire inner portion destroyed, leaving the mere shell of the bone, consequently amputation was the only resort; and not being in favor of joint amputations, I began my incisions an inch above the joint. The patient being much emaciated the tissues retracted very greatly, so that the bone was sawn about the middle third. The operation was concluded by confining the tissues laterally by plasters covered with cotton-batting saturated with carbolated oil. I secured both the femoral vein and artery with ligatures, and the patient was put to bed. He recovered well from the effect of the chloroform.

On the 8th day after the operation I first dressed the limb, and removed the ligature from the femoral vein. On the 15th day the ligature from the artery came away, and on the 35th day the patient was out of the house on crutches, having improved in health and gained in flesh from the time of the operation, and has been wearing a peg leg since October, 1873.

Subsequent dissection of the amputated limb revealed almost total destruction of the entire tibia. After maceration there were eight distinct pieces of bone; the portion of the head of the tibia was eaten out as far as the cartilages, also the joints were infiltrated at knee and ankle. When an incision was made on the outer side of the ankle, there oozed therefrom a yellow serous fluid not coagulable by heat

I think this case to be very unusual and interesting for various reasons:

1. That the patient's mother died of phthisis pulmonalis at the age of thirty, also one brother at the age of twenty of same disease, still another brother who has at the present time cicatrices in the superior lobe of left lung, and his father now suffering from chronic laryngitis, as I think consequent upon incipient phthisis.

2. His rapid recovery after the operation, and his bearing the administration of chloroform so well.

3. The patient was very much emaciated, reduced to a mere skeleton, so light in weight that I could lift him to the dressing-table with one arm, and now his weight is 102 pounds.

4. That the discharge of such very large quantities of pus relieved the lungs of all incipient morbid products, and absolutely cleansed the whole body, so that I think all seeds of the hereditary disease have been carried away.

I examined him to-day, January 7, 1874, and find that the air enters all parts of the lung, and that all the sounds are normal, and I would say that I think his chances for life, free from phthisis, are much better than before his limb was amputated; while before the operation, death was inevitable without it in a very short time—so I would say to all, that in cases similar, operate and give your patient a chance for life, small though it be.

The treatment of the above case has been almost entirely of a stimulating character. Since the recovery from the effects of the chloroform, or nearly so, gave a full dose of morph. sulph. After the first night, McMunn's elix. opii, which was continued four days. I believe that conduces very much to the recovery of surgical patients, by not letting the shock of the operation do the system harm. As will be perceived, I did not give my patient cod-liver oil, or other abominable nauseants, for I can not believe that the product of a decaying, filthy mass of animal substances ever did any good to any being afflicted with a tendency to or actual disease of the lungs since its introduction as a medicine—internally, I mean. Therefore I prescribed for my patient port wine, at first; afterward, good whisky, eggs, milk, and sugar, in the form of eggnog, in liberal doses, and continued the stimulants until the stump was entirely healed.

Art. III.—Some Facts in the History of Asiatic Cholera.

By WM. CLENDENIN, M. D., Professor of Anatomy in Miami Med. College.

It is thus evident that prior to the year 1832, Asiatic cholera was unknown to the majority of the profession even by name. That year opened to the profession a new experience, and, as might be imagined, physicians who witnessed this terrible disease for the first time, marching with an unseen tread, and "forbidding all traces of its footsteps," were unadvised as to its true origin, endemicity, transmissibility, and propagation.

The epidemic of 1832, as already stated, developed first at Quebec and Montreal, localities where the first vessels that ever came to this country with cholera on board landed passengers. In a similar manner the disease developed at other points wherever those who had been exposed to it chanced to be. Persons leaving a place where the disease was prevailing, and going to one where there were no indications of it, were, in numerous instances, seized with cholera. Such was the fact in the case of the brig Amelia, "which put in at Folly Island, on the coast of South Carolina, in a stranded condition, and the only case there—no cholera having been noticed before—occurred among those who had been employed about the wreck. At Detroit, the first cases made their appearance after the arrival of the steamer Henry Clay, in July (1832), which had cholera on board. It broke out at St. Michaels, a previously healthy village, on the eastern shore of Maryland, just after the landing of Captain Dodson, who died (of cholera) the morning after his arrival. It appeared among the Indians, after the interment by them of a corpse, dead from cholera. It was brought to Illinois by Captain Blakeman, who had been to St. Louis, where the cholera was, and died of it on his return. It was not seen at Key West until the arrival of the Ajax, in a distressed condition, which had sailed from New Orleans, where the disease was prevailing, and which had the cholera on board at the time."

The extension of the disease seemed to be governed by fixed laws, which have been found to operate in each succeeding epidemic. Its course was often determined by the advance of armies; in some instances it followed the course of rivers, and great roads or thoroughfares in others. The epidemic of 1832 seems to have been further characterized by its mode of invasion, which was almost always sudden, and violent at its onset. Its ravages rarely continued beyond six week, in any one place; and its greatest number of victims were during its first two weeks, after which it declined, and in some instances ceased very suddenly. And it always manifested a preference for human beings when massed together, as armies in camp, and in cities. Its ravages seemed to be greatest during warm and wet weather, and it continued then quite into winter. High grounds were not altogether exempt from it, though it was more prevalent in the valleys.

The epidemic gradually and almost entirely disappeared during the winter of 1832 to 1833, from almost every place where it had prevailed in the United States; but during the ensuing summer it broke out in the West Indies, and subsequently in the towns upon the borders of the Gulf of Mexico. During the year 1834 it prevailed in both provinces of Canada, and in some parts of the State of New York. In 1835 and 1836 the disease numbered its victims in different parts of the country, and subsequently disappeared altogether.

The second great epidemic of cholera which spread over this country commenced in India, in 1844. The assembling of 165,000 pilgrims, at Tantah, in the delta of the Nile, in July, 1847, to celebrate the festival of a Mahomedan saint, furnished a focus for the development and spread of the disease; over 3,000 died there of cholera, and immediately on the dispersion of this concourse, the disease appeared in Alexandria and Cairo. In Lower Egypt alone over 55,000 persons died of the disease.

This epidemic extended through Persia to Russia, and reached the city of Moscow the same year. During the Kossuth war it invaded Hungary, and thence Austria and France, and passed into England by way of Sunderland, which was precisely the same course by which the epidemic of 1831 reached England.

On the 9th day of November, 1848, the packet ship New York, sailed from Havre for New York, with twenty-one cabin and three hundred and thirty-one steerage passengers on board. On the 25th, when the ship was about 140 miles south-southwest of Sable Island, and the temperature 42°, the cholera broke out. The greater number of the steerage passengers were Germans, from different parts of Germany, a small number were from Paris. Havre was unaffected at the time of their departure. The cause of the outbreak was ascribed to the opening and using by an emigrant of a chest of clothing which had belonged to a German emigrant who had died of cholera. A number of cases occurred during the remaining part of the voyage, several died, and twelve cases were landed at the quarantine station at Staten Island, New York. The disease continued to prevail among the passengers from the time of landing, December 4th, until the 9th; from the 9th to the 11th there were no new cases, but the disease then reappeared, and subsequently broke out among the patients of the Marine Hospital. "A few days after its appearance at the quarantine, an individual, coming from that place, stopped at a German emigrant house, corner of Greenwich and Cedar streets, and being attacked with the disease, was carried back, and died in a few hours." Several days afterward another case occurred in the same house in Greenwich street. On the 20th a German was attacked and died at 161 Washington street. The number of cases reported from the quarantine physicians to January 1, 1849, was ninety-one, of whom forty-seven died, nearly all of whom were Germans.

The cholera was carried to New Orleans by passengers from the ship Swanton, from Havre, which landed her passengers on the 11th day of December. The Swanton's passengers were German emigrants. When two weeks at sea the cholera broke out, and seventeen persons died of the disease before arriving at New Orleans.

Dr. Wederstrandt states, that on the 12th of December, 1848, the cholera broke out in the Charity Hospital (New Orleans). The first two cases were a man and woman, brought in in the last stage of the disease, from the ship Swanton, which had just arrived from Havre. The next day numerous cases appeared in the houses near the shipping, and in other parts of the city. Subsequent to January 5th, and during the winter, there were eleven hundred and fifteen deaths from cholera in New Orleans. Excepting the cases enumerated, the disease did not extend beyond the limits of Staten Island Hospital, at New York, after the arrival of the infected ship there ; but at New Orleans it spread rapidly throughout the city, following and severely inflicting the soldiers of the 8th regiment of United States infantry, and the residents of Lavaca, Texas, as well as extending up the Mississippi and its tributaries: "So that at Memphis cholera appeared the 22d December, 1848; at St. Louis in January, 1849; and at other places on the upper Mississippi in March." The first cases occurred in this city on the 26th of December, or more correctly, occurred on boats from New Orleans direct, which landed here on that day, and were taken thence to the Commercial Hospital. "Chicago was reached from St. Louis by a canal-boat passing through the Illinois and Michigan canal, with emigrants directly from New Orleans. The arrival was on the 29th of April, on which day Captain Pendleton of the boat was taken sick, and died of the disease the next day. The disease spread from point to point along the lines of travel, from the river towns, across the northern Middle States, till it reached

New York in the month of May. 'No quarantine' at New Orleans allowed it to be disseminated through the country till after a four months' journey it stalked into New York at the back door!" It was not till then that New York was visited by the epidemic, notwithstanding, as already stated, the disease had been imported at Staten Island by the packet-ship New York, in December. Philadelphia and other eastern cities were invaded soon after it became epidemic in New York.

One of the most curious and interesting facts in the history of cholera is its nearly simultaneous appearance in two vessels traversing the Atlantic ocean when about a thousand miles apart.

It is an interesting fact that cholera, in this as in the first epidemic, affected a predilection for the great highways of travel. A distinguished author remarks, that "what is particularly noticeable, is the constancy in the direction followed by the principal epidemics; a constancy so remarkable, that the track of this scourge for the future is, as it were, marked out upon the map of the world.' The fact that the disease has so constantly followed the course of rivers and the shores of seas, gave rise to the opinion that the influence of humidity is there the cause. But this opinion is met by the fact that the course of epidemics is not less frequently over the great land routes. It must be admitted, however, that the disease, during the progress of both epidemics, often passed over distances of vast extent, leaving the inhabitants entirely exempt from its ravages, and that it afterward retraced its steps, causing great loss of life in places which at first escaped it.

It may be interesting to note that certain precursory or concomitant phenomena attended both the first and second epidemics of cholera. For example, it has been supposed that there existed a tendency to intestinal affections as a precursor of cholera.

Numerous writers have noted the fact that, in many instances, certain endemic or epidemic diseases rage with more or less violence before the appearance of the cholera. Influenza was prevalent in 1847 in London, Paris, Madrid, and very many other places in Europe. In Russia, intermittent fever, of an unusually malignant type, prevailed as a precursor of cholera. Small-pox, too, in an epidemic form, has been in some places a certain forerunner of cholera. The second epidemic of cholera in Cincinnati was heralded by small-pox.

Tardieu states that, in a great number of cases, the approach of cholera has been announced by epizootiae. In India, Russia, and

Poland, deadly epizootia were noticed among camels, goats, horned beasts, dogs and poultry. In the departments of Calvados and Mayenne, during the summer and autumn of 1831, a very severe epizootia attacked horned cattle, swine, and horses. It will be remembered that the last visitation of cholera in this country was preceded by a most remarkable epizootic among horses.

The emigration of birds was also a striking phenomenon noted as indicating the approach of cholera in 1832, and again in 1848. Thousands of rooks and daws are said to have suddenly abandoned their nests at Glatz, in Russia, and also in other places.

Neither of these two epidemics (1832 and 1848) of cholera, even when most prevalent, exclude other epidemics. In Constantinople it was attended with plague; in some parts of France by the sweating sickness; by typhoid fever in Moscow; and scarlatina in other localities. It is a well-known fact that epidemic cholera has, in numerous instances, been transformed into dysentery. The last epidemic of cholera in Cincinnati was thus transformed.

An Old Cancer Cure Revived.—Dr. Brewer writes to a recent number of the *Medical Times*, that a patient of his was given by a friend, the following recipe:—

R.	Chlor. zinci,	gr. viij.
	Blood root,	gr. v.
	Starch,	gr. viij.

Make into a paste with honey.

"The cancer was at this time nearly as large as a hen's egg. After applying the paste for two weeks, he called to see me. I found it had diminished to half its former size. I advised him by all means to continue it. After a month's use of the remedy the cancer was not larger than a dime. He continued to use it until the disease was cured."

This is the "cancer salve" of old Dr. Fell, famous some forty years ago, but long since condemned to neglect.

Sir James Paget says the best wash for hardening the skin to prevent bed-sores, is one part of sweet spirits of nitre to three parts of water.

Hospital Reports.

CLINICAL LECTURE OF DR. JOSEPH AUB.

Reported by E. M. NELSON, Resident Physician.

I now desire to call your attention again to some points with reference to iritis, its different varieties and its treatment. Under the old system of classification of diseases, according to the supposed cause, there were over thirty different varieties of iritis. During the last fifteen years we have adopted a much simpler classification, based upon the pathological anatomy of the disease, and writers now name but four varieties of iritis: simple or idiopathic, serous, suppurative, syphilitic. In my opinion, this number might still further be reduced. It seems to me that all the cases of iritis might be classified as either parenchymatous or serous.

In certain particulars these forms of the disease are separate and distinct, but we will first consider the points which are common to all cases of iritis.

First of all is a symptom to which I have called your attention before, the circumcorneal zone of injection. I present you here a case in which this is well marked. You will notice the pink band surrounding the cornea, and surrounding this the white sclerotic separating this zone of injection from the injection of the conjunctiva surrounding the whole.

Another symptom is a loss of the bright lustrous appearance of the iris. This can be observed in all cases. There is also a change in the color of the iris, dependent upon the increased amount of blood circulating in it. It is sometimes very difficult to determine the existence of this change of color, and we are often obliged to compare the diseased eye with the corresponding healthy one, in order to satisfy ourselves that any discoloration exists. A gray iris receives a greenish hue when affected with this inflammation, though often it is so indistinct as to be recognized with difficulty, and only on careful comparison with its fellow.

We shall always observe, also, that the movements of the pupil are exceedingly sluggish in patients affected with this disease. This depends in part upon the swollen condition of the vessels, and in part upon the exudation of lymph into the substance of the iris. The pupil is contracted also, except in the serous form of iritis.

If you observe very carefully the pupillary margin of the iris, you will notice in these cases small particles of lymph exuded. When the pupil is contracted, the posterior surface of the iris is in contact with the capsule of the lens, and these particles of exuded lymph are likely to form adhesions between the iris and the capsule. These adhesions, or synechiæ, may increase in number and extent until the whole pupillary margin is adherent to the capsule. This condition is called exclusion of the pupil. These adhesions may not be confined to the pupillary margin, but may occupy a considerable extent of the posterior surface of the iris, gluing it to the capsule. Furthermore, there may be an exudation of lymph, which organizes and fills up the opening of the pupil itself. This condition is called occlusion of the pupil.

Another constant attendant of iritis is pain, which is located around the eye, over the brow, and in the temple; but not in the eyeball itself in cases of uncomplicated iritis. Whenever the eyeball itself is painful and sensitive to the touch, we may be sure that the ciliary body is involved. Another peculiarity of the pain is that it is aggravated toward night, and becomes less toward morning. This pain is often most intense at night; so much so as to produce a marked effect upon the general condition of the patient.

We have also in most cases of iritis a greater or less impairment of the vision due to a turbidity of the aqueous humor caused by minute particles of lymph floating in the anterior chamber. Sometimes pus is formed, and falling by its greater specific gravity to the bottom of the anterior chamber, may be observed there, forming the condition called hypopium, of which I have spoken to you before in another connection.

Simple iritis may be produced by a variety of causes, and may be of every grade of severity—from the mild cases in which there is slight injection around the cornea, little discoloration and impairment of motion in the iris, moderate dread of the light, and lachrymation or flow of tears, with very little or almost no pain, and very few and small synechiæ, or it may be none at all, up to those severe cases which are often classed as parenchymatous or suppurative, in which all the symptoms are present with the greatest intensity, the iris becoming firmly adherent to the capsule of the lens; the pupil, it may be, occluded; the anterior chamber half filled with pus; the patient tortured with most excruciating pain.

The symptoms of serous iritis are not so striking as those which have been mentioned. Pain and the circumcorneal injection, with discoloration of the iris, may be almost entirely absent in these cases. The peculiarity of this form of iritis is the production of particles of lymph in the anterior chamber, which are exuded from the vessels of the iris, and floating in the aqueous humor, settle upon the posterior surface of the cornea in such a manner as to form a sort of pyramid, with its base at the circumference of the cornea and its apex at the center. This peculiarity of form is caused by the particles settling from the fluid by their specific gravity, as has been demonstrated by causing a patient suffering from this disease to change his position from time to time, when it was observed that the particles upon the posterior surface of the cornea arranged themselves so that the base of the pyramid was toward the lowest side of the cornea.

In the suppurative form of iritis we have the same condition of chemosis of the conjunctiva that is observed in gonorrhœal conjunctivities, the swollen conjunctiva often forming a wall overlying the margin of the cornea. At first, dull spots appear upon the surface of the iris, and gradually the whole iris loses its normal bright color; the vessels become swollen and distorted until they appear like snakes upon the surface of the iris. The aqueous humor becomes cloudy, and often there is a collection of pus in the anterior chamber forming the condition called hypopium. If the suppurative action is not promptly arrested, we are likely to have ulceration of the cornea, with prolapse of the iris and all the attendant evils.

The other form of iritis which I mentioned is the syphilitic; so called both because syphilis is the cause of the disease, and because of a peculiarity which distinguishes it from all the other forms. Small elevations appear, which may be isolated or to some degree confluent. As these increase in size, they push aside the fibers of the iris and appear as small gummata or condylomata on the surface. These are of the nature of granulations, being of a gelatinous consistency, and composed chiefly of spindle-shaped cells. By degrees they become harder, the fibers are more numerous, and the cells are found to contain a number of nuclei which at first contained but one.

They then undergo fatty degeneration, and finally are broken up into a crumbling, cheesy mass, which fills the anterior chamber. Under proper treatment, they may be rapidly absorbed.

There is another form of iritis, which is not mentioned in the text-books. In this. the iris becomes very much swollen ; there is chemosis of the conjunctiva ; the aqueous becomes cloudy, and, in short, there are all the indications of a severe suppurative iritis. But, under strict treatment, the cloud in the aqueous gradually clears up at the periphery, becoming more dense toward the center—apparently becoming more condensed, and so occupying less space, like a sponge when compressed. As this spongy mass becomes more condensed in the pupillary space, there is a greater impairment of vision, and the patient thinks that his condition is becoming worse. Gradually the spongy mass is entirely absorbed, and leaves the vision clear. For the first few days, the symptoms are very grave, but as the cloudiness begins to disappear at the periphery, the prognosis is much more favorable.

The causes of iritis are exposure to cold, irritation from foreign substances, too bright light, and, most important of all, syphilis, to which it is estimated that three-fourths of all cases of iritis may be referred. It is not only the cases of so-called syphilitic iritis which are due to that disease, but many cases of simple iritis are due to the same cause.

If a patient comes to you early in the course of an attack, before the symptoms become very severe, and especially before firm adhesions are formed, the prognosis is a favorable one. If the early stage of the disease has been neglected, if firm adhesions have formed, or, worst of all, if ulceration of the cornea, with prolapse of the iris, have taken place, the prognosis is most grave.

In the treatment of iritis, the first indication is to prevent the agglutination of the iris to the capsule of the lens. By dilating the pupil, the iris is drawn away from the capsule, and so the formation of adhesions is prevented, or at least rendered more difficult. In order to dilate the pupil, we use a solution of sulphate of atropia. In a healthy condition of the iris, complete dilatation will be produced by a solution containing one-tenth of a grain of the salt to the ounce of water; but when the iris is inflamed and swollen, its movements are interfered with by the distention of the blood-vessels and by the exudation of lymph into the substance of the iris itself. So, in these cases, we find it necessary to use solutions containing from four to eight grains to the ounce of water. If but slight adhesions have formed, they may be torn by the use of atropia. Soelbey Wells recommends that a drop of the solution be placed in the eye every five minutes for a half hour, four times a day. In my experience, I find that I get better effects (partly because the order is more likely to be carried out faithfully) by having the solution dropped in every hour or half hour during the day. In some cases, the atropia does not produce the desired effect. There is a good deal of irritation, considerable pain, and little or no dilatation of the pupil. In many of these cases, local depletion affords almost immediate relief of the symptoms. Four to six leeches should be applied to the temple, and the bleeding allowed to continue as freely as may be after the removal of the leeches. Such local depletion is often a most valuable assistant to the action of the atropia.

Whenever adhesions have formed, resolvent remedies should be used to secure the absorption of the lymph, and so the release of the iris. The most valuable of these remedies is mercury, which may be administered in various forms—by the mouth, in the form of the mild chloride; by inunction, in the form of blue ointment; or by hypodermic injection, in the form of the corrosive sublimate. In recent cases, the mercurials should be given freely, so as to bring the patient under the influence of the remedy within forty-eight hours. Here, in the hospital, we use the inunction of mercurial ointment, in connection with doses of one-fourth to one-half grain of the mild chloride, guarded with opium, to prevent cathartic action. Occasionally, we find it advantageous to give, in addition to this, a hypodermic injection of the corrosive sublimate, beginning with one-sixteenth and increasing it to one-twelfth or one-tenth of a grain of the salt. Sometimes, when the system has resisted the influence of the inunctions and the mild chloride for some time, one or two injections will serve to produce a marked effect. It is necessary to watch the patient carefully when administering mercurials in this way, and stop their use so soon as there is the slightest evidence of mercurialization. Different constitutions vary much in their toleration of this remedy, some taking large quantities for a long time, and others coming under its influence very promptly. The severest case of ptyalism that I ever saw was brought on in three days by the use of quarter-grain doses of the mild chloride, three times a day.

If we are unable to destroy the synechiæ by the means which have already been mentioned, it becomes necessary to perform an iridectomy, thus relieving the tension of the iris, and lessening the danger of a recurrence of the inflammation.

CASE OF RHEUMATISM WITH CARDIAC COMPLICATIONS (DILATATION OF LEFT JUGULAR VEIN).

SERVICE OF DR. WM. CARSON.

History condensed from the Records of Cincinnati Hospital, by E. M. NELSON, Resident Physician.

L. C——, æt. 22; Ireland; domestic; single.

Nov. 29, 1872. She states that about six months ago, she suffered from an attack of rheumatism, but recovered entirely. One week ago she took a severe cold, which was attended with rheumatic pain in the arms and knees. She has considerable pain in both sides when she breathes; coughs a good deal; has fever every day, followed by sweating. There are mucous and submucous rales heard all over the chest; nothing abnormal was heard at the heart.

Dec. 2, A. M. Temperature, 102°; pulse, 120. Cough slightly improved; dullness over left lung anteriorly, with some moist and sibilant rales. She has been taking—℞. Pulv. opii, grs. vj; potass. nitrat. ʒ iss; gum guiac. ʒ j. M. ft. chart. no. xij. Sig. one every three hours.

Dec. 7. Stopped the above, because the stomach rejected it; ordered, ℞. Quiniæ sulph. gr. iij; bismuth, grs. x; every three hours. Comp. syr morph. ʒ j; every three hours.

Dec. 9. Stopped quiniæ sulph.; ordered ammon. carb. grs. x, every two hours.

Dec. 10. Spit some blood to-day.

Dec. 16. Another slight hemoptysis to-day. There has been no marked change for some days. She suffers more at times from the rheumatic pains, and at other times more from the cough. Stomach quite irritable at times.

Dec. 18. Coughs a great deal. Stop ammon carb. Ordered potass. iodid. grs. x, every four hours.

Dec. 19. On left side there is impaired resonance and increased dullness, with prolonged and high-pitched expiration. Temperature varies from 101° in the morning to 102° at night. Pulse 100 to 140.

Dec. 21. Notice increased præcordial dullness. Heart sounds tolerably distinct. Respiration on left side feeble compared with that on the right. Ordered vini oport. ℥ss, every four hours.

Dec. 23, A. M. Temperature 102¼°; pulse 130°. P. M. Temperature 103°; heart sounds clear.

Jan. 2. Has spit some blood for the last four days. Cough no better. A good deal of pain in the left side.

Feb. 2. She has suffered less with the rheumatic pain, and has had less cough during the last two weeks. On examination, there is high-pitched respiration, with increased resistance upon percussion, on the left side. There is a double murmur heard at third intercostal space one and one-half inches to the left of sternum. Stopped all medicines now taken, and ordered tr. cimicifugæ ʒj, ter die.

March. Suffering a good deal from rheumatism Have been obliged to give morph. sulph. gr. ¼–⅓ every night to induce sleep. Her condition otherwise is much improved.

March 13. A murmur is heard with its greatest intensity at the apex about the nipple. It is a systolic murmur of low pitch, and rather harsh and loud. At the junction of the second costal cartilage with the sternum, a double murmur is heard, which fades toward the apex.

April 29. Patient is entirely relieved of all acute symptoms. She is very weak.

June 24. Discharged at her own request.

Aug. 6. Readmitted. She complains of some pain, with numbness and impairment of general sensation in the feet; feels weak in the knees, and is giddy when she turns in walking. She is most troubled with a shortness of breath, which has been increasing during the last five months. She coughs a good deal and can not lie down flat on account of dyspnœa. She sleeps little, being kept awake sometimes by a pain in her left side, and at other times by mere nervousness. She expectorates considerable frothy mucus.

Aug. 10. There is a systolic bruit at the apex of the heart. Slight dullness at the apex of the left lung. Inspiration is somewhat higher pitched on the left side and is occasionally interrupted. She has a good deal of pain in left shoulder and chest. Ordered tr. cimicifugæ ʒij, ter die.

Aug. 15 Very restless at night. Feels very comfortable this morning, except for weakness and some pain in her back. Noticed a marked pulsation of the vessels upon the left side of the neck.

Aug. 16. Pulsation in the jugular veins is quite noticeable this morning. The legs are swollen as far as to the knees.

Aug. 24. Suffering a good deal from the tension of the water in her legs.

Aug. 26. Slept five hours last night under influences of chloral. Pulse very irregular, varying from 30 to 45 beats per quarter minute. Respiration 59; feels very weak; sweating profusely. Sputa very viscid.

Aug 27. Suffered less to-day. Still very weak; pulse 112; respiration 33. Pulsation of the vessels of the left side of neck less forcible than before.

Aug. 30. There is an effusion into the abdominal cavity. She complains of uneasiness and sense of fullness. Ordered warm fomentations over the abdomen. Also, ℞. Liqnor potassæ arsenitas, gtt. ij, ter die.

Sept. 2. Quite comfortable to-day. Stopped the warm fomentations and the liquor potassæ arsenitas.

Sept. 4. Pulsation of the left carotid (?) is very distinct to-day. Pulsation is also quite marked upon the right side, but by no means so strong as on the left.

Sept. 5. Pulsation of the carotids is less marked to-day. Edema of the legs is so great that she can not walk at all.

Sept. 9. Pulsations on the left side of the neck is perceptible as far as the mastoid process.

Sept. 12. Noisy all night from suffering. Pulsation much more marked upon the left side of the neck than upon the right. Pulsation of heart from nipple to second intercostal space. Thrill in the latter position.

Sept. 13. Died at 3 P. M.

Autopsy seven hours after death:

Face livid, particularly the right side; also the upper part of chest. Legs swollen, pitting on pressure. Abdomen distended. Cadaveric rigidity nil. On opening thoracic cavity a good deal of blood and serum escaped. Uncovered pericardium measured 6 by 4 inches. Apex of heart five inches to the left of the median

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line, on a level with the fifth rib. Heart extends upward to the first rib on the left side and two and a half inches to the right of the median line.

There were adhesions between the pleura and pericardium on both sides. The left lung is compressed upward, backward, and to the left by the heart. The border of the lung is three and a half inches to the left of the median line.

The left jugular vein is very much dilated; this dilatation extending from the junction with the descending vena cava to the level of the lower angle of the jaw. Right jugular shows no enlargement. The heart, with aorta, veins, and trachea attached, weighs one and a quarter pounds. The pericardium is everywhere so adherent that it is necessary to dissect it off with a scalpel. The mitral valves are very much thickened and the orifice somewhat contracted. Aortic valves are likewise thickened. The cause of dilatation of left jugular does not appear. In the posterior part of the right lung, is a small caseous mass. The lungs are collapsed and not so crepitant as usual.

CASE OF FRACTURE OF THE SPINAL COLUMN.

SERVICE OF DR. B. F. MILLER.

Reported from History Books of Cincinnati Hospital, by E. M. NELSON, Resident Physician.

September 13, 1873. J. K., æt. 24; painter.

Boarding at the G—— House and working upon the repairs. Last night coming home intoxicated, and attempting to make his way through the unfinished addition, he fell between the joists into the cellar, striking on a pile of stones. On examination when he was brought to the hospital, a fracture was discovered at about the middle of the right clavicle. There was an incised wound over the left side of the head 5¼ inches from the left meatus auditorius externus, 1¼ inches from the median line, and one inch anterior to a perpendicular through the meatus. On inserting the finger into this incision, a rough edge of bone is felt, apparently corresponding to the coronal suture: the frontal bone at this point appears to be depressed. On examining his back a deformity is observed at the third dorsal vertebra. It appears that the third dorsal vertebra, with those above it, is driven forward upon the fourth. He complains of pain upon pressure at this point, and says, "That 's the place."

Below this point there is neither motion nor sensation. The line corresponds to a circle drawn around the body at the lower margin of the axilla. If the hair be pulled on his chest one inch above this line, he will say that it hurts him; but if you pull it one inch below that line and ask what you are doing, he answers, "Nothing." Breathing is almost wholly diaphragmatic. No reflex movement is produced by tickling the feet.

The bladder is paralyzed. On introducing the catheter, a very small amount of urine passed; but by continued pressure over the hypogastrium, ten ounces were withdrawn. The pupils respond to light; pulse 80; tongue has a slight brown coat. Temperature in the left axilla, at noon, 100°; in left inguinal region 98½°; behind left internal malleolus 98°.

6:30 P. M. There is some reflex action upon pricking the left foot with a pin. Five ounces of urine were drawn off. Temperature in axilla 102½°; on left thigh 101¼°; right thigh 100½°.

September 14, 11 A. M. Pulse 90; temperature in left axilla 106°; on left thigh 100½°; on right thigh 101½°; behind the right internal malleolus 104°. He lies in a sort of a stupor, and can with difficulty be aroused. Drew off sixteen ounces urine.

5:30 P. M. Very stupid; can scarcely be aroused at all. Temperature in axilla 105°; at right malleolus 103°; at left malleolus 102°.

September 15. Died at 7:30 A. M.

No autopsy was permitted.

CASE OF INJURY TO SPINAL COLUMN.

SERVICE OF DR. C. S. MUSCROFT.

Reported from History Books of Cincinnati Hospital.

April 17, 1873. T. M., æt. 45; Ireland; peddler.

Six days ago, at 9:30 P. M., he fell from a second-story porch to the ground, striking upon a brick pavement on the side of the head and back. He was insensible from the time that he fell until five o'clock the next morning—seven and a half hours. His wife states that when he was found after the fall, he was covered with blood, and that he expectorated a large quantity of blood. There was some blood in his ears, which she supposed came from a wound on the left side of his head, which was produced by the fall.

On admission his pulse was 100, small and feeble; tongue covered with a brown coat; appetite very poor; bowels have not been moved since the accident; urine has to be drawn off with a catheter, has a very offensive ammoniacal odor, the last passed being mixed with mucus.

On examination, a scalp wound is found over the posterior and upper part of the left parietal region. There is also a severe injury of the spinal column between the tenth and eleventh dorsal vertebræ, there being a marked deflection to the left at that point, which is also very sensitive to pressure. He complains of pain through the chest, which is very much increased on motion. Over the sacrum there is an abrasion of the integument about 1½ inches in diameter. All parts below the point of injury in the spinal column are paralyzed. He has neither motion nor sensation in the lower extremities: titillation of the soles of the feet does not produce reflex action; nor does the application of the battery, with one pole above and the other below the point of injury, cause any muscular contractions.

There was some mucous bubbling over the lower lobe of right lung, sibilant rales over both lungs, gurgling in the throat, and evidences of hypostatic congestion. There is marked tenderness to pressure over the liver; the abdomen is tympanitic.

Ordered to inject the following: ℞. Ol. terebinth; ol. ricini, *āā* ℥iv.

To take internally the following: ℞. Podophyllin. gr. j; ext. hyosciami, gr. ij; ext. colocynth. comp. gr. iij. M. ft. pill j.

Both to be repeated every three hours until bowels move.

April 18. He had a sinking spell this morning, but revived after taking some whisky and water. On being informed that there was no hope of his recovery, his wife insisted upon his being removed to their home, where he died on the second day.

New Remedies.

BY J. S. UNZICKER, M. D.

Two New Drugs.—We learn from the *Zeitschrift des allgemeinen Oestr. Apotheker-Vereins* that two plants, which are natives of the Phillipine Islands, have attracted some attention at the Industrial Exposition at Vienna. One of these is the *Echises scholaris*, an Apocynaceous plant; the other, the *Garcinia Mangostana*, one of the Guttiferæ.

The Echises is an abundant tree in the province of Rataugar, in the island of Luzen, the bark of which has long been used by the natives, under the name of Dita, as a remedy of all kinds of fever. G. Gruppe, an apothecary in Manilla, examined the bark, and he obtained from it, after repeated analysis, a very hygroscopic bitter principle, to which he gave the name of Ditain. Prof. Dr. Miguel Zina, a Spaniard, and chief physician of the province of Manilla, experimented with it in the hospital under his care, and found that ditain is not only a perfect substitute for quinine, but also that in its use the frequent unpleasant after-effects of quinine are avoided. It is given in the same doses as quinine, with a perfect certainty in its effects, and can be procured at about half the price of quinine.

The Garcinia had previously been used in medicine as a decoction of the fruit husks, until Mr. Gruppe introduced an extract which is now used in all hospitals, where it has shown to be a safe, rapid, and thorough remedy for dysentery and chronic diarrhea, as well as all catarrhal affections of the bladder and urethra.

Medical Laws.—In different countries, stringent laws exist for the protection of the public against quackery, and none were more so than those formerly existing in Prussia.

But, of late, a more simple but most effective one was enacted, which seems to answer all purposes and furnish better results. It is as follows: Any person, who desires to do so, may practice medicine, but under certain restrictions:

1. He can not put his name to a sign or door-plate as a doctor.
2. He can not collect his fees by process of law.
3. He can not give professional evidence before any court.

This, like most Prussian laws, is plain, simple, and easily understood without interpretation, and would answer very well for this country also.

Correspondence.

NEW YORK, *January* 8, 1874.

FRIEND CULBERTSON:—The attendance in the schools here is not quite up to the average, compared with former winters I counted the students upon the benches at Bellevue—Prof. Mott's surgical clinic—this morning. There were 198. Over at the University, they had 114 at Prof. Arnold's lecture; while at Prof. Sabine's hour, in the College of Physicians and Surgeons, there were 158 faces. I have been almost daily in attendance in the several colleges, and believe the figures given to be about correct.

The personnel of the classes is unusually good. Each year I have observed in New York, as elsewhere, an improvement in the physique and physiognomy of those going into our ranks—men of more vim and snap, and of higher intelligence and social position. This bodes well for the profession. They dress better, seem more prosperous, and are better looking than when we helped to make up medical classes. In fact, now, outside of the amphitheater, one would not know that they were medical students at all. Why, when I graduated, only two in a class of over forty registered their intention of studying medicine. In the estimation of the students this was considered equivalent to throwing one's-self away. It was not thought worth while to get a collegiate education to become only a doctor. Abroad, our calling has always ranked the first in honor and dignity. The indications now give us hope that this will soon be the case at home.

The majority of the professorial corps of New York will compare favorably with those of the leading schools in Cincinnati or Chicago; while a few, as Thomas, Flint, Sims, etc., are, through grace, voice, and diction, pre-eminently happy in their style and delivery. You know, a person may be a fine scholar, intelligent, write well, and all that, and yet be a miserable lecturer. Without voice, the *graces*—fluency and lucidity—and without a tinge of eloquence withal, one is not apt to become much of a success in the lecture field. It is puzzling to the common mind, that the schools in a metropolis like this should carry considerable loggy timber, though this is not idiopathic to New York.

The foreign plan of small classes, under specialists, masters in their departments, is coming much in vogue here. It is becoming the fashion in the west too, but not so widely. It indicates earnestness, enthusiasm, and thoroughness—the outgrowth of a higher intelligence and ambition in those cultivating our science; a desire for knowledge rather than a diploma only. Its advantages need no exposition over the dry formal didactic method, and the expense is hardly greater. Special courses—six to twelve in a class—can be had for about fifteen dollars in any of the branches, with very great pleasure, satisfaction, and profit. Any one with only a moderate amount of enthusiasm, who means business, can accomplish a deal more in this way, than by listening by the dreary hour to prosy lectures, which can be better read or rather *studied* at leisure in the text-books at home. For these special courses the hospitals and dispensaries are made available, and, as will appear further on, the material is ample. For the student or practitioner without a diploma, your city may in many regards be considered superior to New York. The classes being smaller, there is better opportunity to see and hear, while your clinical advantages are sufficient; the climate is pleasanter; college fees much less; the expense of living only about one-half, and the didactic teaching equally as good. But for the practitioner with a diploma, or careless about one, and thoroughly posted, having little time to spare, and desirous of gaining information quickly upon practical points, time and money can be saved by coming here. An intelligent medical friend informed me that he came here with only ten days for a " medical spree." Within that period he witnessed twenty-six surgical operations, covering the entire ground he wished to review.

From the Medical Register of New York city, of '73–74, I will note a few statistics, which may be of interest. There are 2,029 physicians; 29 medical associations; 115 charitable societies; 42 hospitals, with 13,066 beds; 41 dispensaries, in which, during the past year, 243,734 *bona fide* patients received treatment.

I had the pleasure last Monday of lunching with Dr. Marion Sims at his residence, and accompanying him thence to the Woman's Hospital, to witness ovariotomy by him. The credit of founding this institution, you are probably aware, is mainly due to the doctor, whose great improvements in practical gynecology have justly given him a world-wide reputation. Gynecology as a science dates from its establishment, the first of its kind in America, and indeed the first in the world. His time is very fully occupied.

He informed me that he had nine nurses constantly employed in his private practice. and that they nursed for no one else. Without detailing the operation *seriatim*, a few salient points will be noticed, especially as in some respects at variance with other high authority. Immediately on reaching the cavity, he enlarged the opening by dividing the entire thickness of the abdominal parietes by blunt pointed scissors, instead of upon a grooved director, equally safe and more rapid. Before puncturing the tumor he separated the adhesions to the abdominal walls with a long slightly bent fenestrated lever. After puncture he used the hand only. After turning out the sack, the pedicle was temporarily secured by a chain ecraseur while being ligated. Dr. Sims stated that he had totally discarded the clamp, in the treatment of the pedicle. This was rather a surprise, particularly as this was a typical case for its use—the pedicle long and neither thick nor vascular, and as Spencer Wells, who has operated nearly 600 times, and Atlee about 300, use the clamp whenever they can, and expect success just in proportion as their cases will admit of it.

Against the clamp he urged greater danger of hemorrhage from the pedicle, and that the pain, and dragging upon the uterus and broad ligament often attending its use, was a frequent cause of inflammation. He believed that increased success was to be attained in ovariotomy by providing means for free drainage of peritoneal exudation or the products of inflammatory action.

For a long time, Dr. Emmet and himself contended for and used only the wire ligature for the pedicle. They have now thrown this aside, and employ at present either catgut, or unmanufactured silk, as found in the ordinary silk fishline. The objection to the wire is that it remains as a foreign body; moreover, it partly fractures when great tension is made upon it. The gut softens and loosens after becoming soaked thoroughly in the fluids, while the silk does not, and as the latter is *absorbed*—which was once not known or admitted—it supplies all the desiderata of a perfect ligature. Having selected a portion of the pedicle several inches from its base, comparatively free of blood-vessels, the doctor transfixed it with an armed needle in a fixed handle, and through a loop made by the thread and needle, he passed his silk ligature, which was of course drawn through the pedicle on withdrawing the needle. The ligature for the opposite half was by the same means *looped* through the first one, and both securely tied and cut short.

Prof. Sims establishes drainage through Douglas space, and also through the pubic end of the abdominal wound. From within the pelvis he pushed behind the uterus, into the vagina, the trocar and canula, the latter having and being maintained in position by Dr. Skene's ingenious attachment of annealed wire—the loops of which are pressed back out of the way by simple traction. Whenever it is desirable to withdraw the canula through or from the vagina, a section of rubber tubing is slipped upon the canula to carry the drainage beyond the vagina. The operator maintains that the canula behind the uterus had the advantage of keeping it in position, preventing retroversion, which has sometimes happened and stopped the drainage. The abdominal drainage is secured through a glass tube five inches long, with numerous capillary openings in its inner third. It is secured in the lower extremity of the wound when closing it. Besides drainage, this permits free syringing of the cavity when needed. Dr. Sims informed me that his own and Dr. Emmet's cases combined, amounted now to about fifty. This institution is now in the nineteenth year of its existence. From the annual report just published, it appears that 340 were admitted during the year; 248 cured, and 14 deaths—most of which were from peritonitis and septicæmia. In the out-door department 616 were treated. A new wing, at a cost of $100,000, is being added, into which there are now awaiting admission over 100 applicants. Prof. Thomas concludes his report by stating that it has been the aim of the board to extend the clinical advantages of the hospital to as many physicians as possible, so as to make its teachings available for suffering women in other communities. I would like to devote a few paragraphs to some other medical matters in and out of the colleges, but as the letter is already beyond readable limits, I shall forbear till another occasion.

G. R. PATTON.

Treatment of Chilblains.—The *Canada Medical Journal* recommends sulphurous acid in this affection. It should be applied with a camel-hair brush, or by means of a spray-producer. One application of this usually effects a cure. The acid should be used pure. A good wash for hands or feet affected with chilblains, is sulphurous acid, three parts; glycerine, one part; and water, one part. The acid will be found particularly useful in the irritating, tormenting stage of chilblains.

Selections.

Tolerance of Disease.—The use of the term *tolerance*, as applied to parts of the body separately and to the body as a whole, is not novel. The term not infrequently enters into medical writings and conversation. It has the same sense here as in other applications; it means the "power or capacity of enduring." Strictly the term implies in the subject, or in that which tolerates, consciousness and will; and there is a mental tolerance of disease, the consideration of which belongs to psychology. In the medical sense of the term the mind is only one of a number of elements. When we speak of the tolerance of disease by the body as a whole we regard the organism, which is but an aggregation of organs and functions, in the light of an entity; and when we say that such or such a part of the body shows tolerance, or otherwise, we consider this part as having a separate individuality. It has always been the fashion in medicine to use language which implies that an immaterial principle, distinct from the mind or soul, is inherent in the body of man and in all organized bodies; a principle corresponding to the archæus of Valentine, Paracelsus, and Van Helmont. And so since the time when diseases were considered to be the work of demons, or evil spirits, it has been the custom to personify them, and to invest them with divers sentiments and passions, such as mildness and malignity, obstinacy, rebelliousness, etc. I will not stop to inquire into the reasons for so doing or to moralize thereon. Suffice it to add that this use of terms is often convenient; and at this day, inasmuch as it is understood they are used figuratively, there is little danger of the understanding being thereby imposed upon. The phrase *tolerance of disease*, therefore, is sufficiently sanctioned by propriety and usage.

I adopt the name *tolerance* to express an important principle in medicine. Limiting attention to the body as a whole, or the organism, I shall consider *tolerance*—the power or capacity of enduring disease—as a principle which it is convenient and useful to recognize as such, and I shall offer considerations which show its importance in relation to prognosis and therapeutics.

To illustrate this principle, let a disease be selected which in itself—

that is, irrespective of complications, antecedent or intercurrent affections and accidents—may or may not prove fatal. Let the disease be acute pneumonia, sufficiently extensive to place life in more or less danger. Suppose a series of cases of this disease with the qualifications just stated; the patients of the same age and size; the conditions of general health and strength of constitution, so far as it is possible to judge, similar; the measures of treatment uniform, and no important diversity in any extrinsic circumstances: clinical observation warrants the assertion that of such a series of cases in some the disease will end in death, and in some recovery will take place. Why is this? There is in addition to all the apparent points of similitude an agency, a factor, an element, or an unknown quantity, and this is *tolerance.* In such a series of cases there is a difference in the power or capacity of enduring; and hence while some patients succumb to the disease others triumph over it. I selected pneumonia simply because it was the disease which first came into my mind. What is true of this disease under the view just presented is equally true of other affections. Take as another example one of the essential fevers. Let it be typhus fever. Under in all respects identical circumstances, intrinsic and extrinsic, so far as we can appreciate them, one patient will die and another patient will recover, because the one has sufficient and the other not enough tolerance to pass through this disease safely.

The question at once arises in what the tolerance of disease consists; but, by way of preparing to consider this question, let us first inquire how diseases destroy life. Naturally we are led to apply this inquiry to acute and to chronic diseases separately. Certain acute diseases are fatal because they are seated in vital organs, and compromise the functions of these organs sufficiently to destroy life. Examples of this are some rare cases of acute pneumonia and pleurisy, cases of pericarditis and of meningitis when inflammatory changes or products affect the portion of the nervous center which is essential to respiration. The events which are incidental to certain cases of disease may occasion death. Examples are either submucous infiltration or exudation in laryngitis, and heart-clot in pneumonia and other affections. Exclusive of these two explanations of death from acute diseases, they kill because, to quote common expressions, "the powers of life give way," "the vital forces are exhausted," "nature can no longer hold out," etc. There was significance in the report of the cause of death in a certificate from a practitioner in this city to the board of health, some years ago, namely, "She died because she could not live!" This, in fact, is the rationale of death in the majority of the fatal cases of acute disease. Patients die because their tolerance is inadequate to carry them through the course of disease and the processes of restoration. An acute disease which does not involve irremediable lesions of organs essential to life, and which is without incidental events compromising fatally vital functions, will end in recovery, provided what we are accustomed to call the "powers of life," the "vital forces," or "nature" be sufficient to withstand the disease. In other words, recovery under such circumstances, is a question of tolerance. If the patient can tolerate the disease for a sufficient length of time, the ending is in recovery; if tolerance give out, the ending is in death.

Chronic diseases, when they destroy life, generally involve structural changes, which are dangerous in proportion to their seat, character, and extent. Seated in vital organs, and incapacitating these for the performance of their functions, a fatal result is the consequence of this effect. If, however, the parts affected are not immediately essential to life, and if there be no incidental events interfering with vital functions sufficiently to cause death, here, as in acute diseases, a fatal ending is due to want of tolerance. What was said of acute holds true of chronic diseases in all respects, provided the latter admit of recovery; that is, chronic diseases which do not involve incurable lesions, and which do not of necessity compromise the functions of vital organs sufficiently to cause death, will end in recovery provided there be an adequate amount of tolerance; and, on the other hand, they will sooner or later end fatally if there be a deficiency in tolerance. But suppose, what is often true, that there are incurable lesions seated either in vital organs or elsewhere; the reliance is upon tolerance for the continuance of life with such a measure of health as is possible with the existence of the lesions.

Here opens up a highly important aspect of my subject. Every one who has had considerable clinical experience must have remarked the wonderful difference in different persons as regards the tolerance of chronic diseases. Take a disease which from its frequency affords numerous illustrations, viz., pulmonary phthisis. A patient may die with this disease after a few months, and the amount of local mischief be no greater than that which another patient will tolerate for more than a quarter of a century! Nothing can be more unreliable than the general condition of the patient; that is, the aspect, weight, muscular strength, etc., as representing the extent to which the lungs are involved in cases of phthisis. The contrast between the so-called rational symptoms and the physical signs is often surprising. This is a matter of common observation, and I need not dwell upon it. Certain cases of organic disease of the heart furnish striking illustrations of tolerance. It is truly astonishing how long and how well valvular lesions with enormous enlargement of the heart are sometimes tolerated. I might, in like manner, cite in illustration of this aspect of tolerance other chronic incurable diseases, including cancer, seated in any of the organs of the body.

I revert now to the question, "In what does tolerance of disease consist?" It is a well-known fact that acute diseases are often not so well tolerated by those who appear to have robust health as by those who seem comparatively feeble. A man in the prime of life, with strong muscles, and whose aspect is typical of vigor, may succumb to an affection which a weak old woman endures with comparative ease. Hence it is that physicians have frequent occasions to repeat the familiar adage of the twig, the oak, and the whirlwind. Now, in explanation of this fact, one of two things is to be supposed: either in the case of the apparently vigorous patient there are occult morbid conditions which render the task of tolerance greater than in the case of the comparatively weak patient, or there is less power of endurance. There are considerations which render the latter the more probable explanation. We notice the same apparent incongruity in the ability to endure prolonged muscular exertions, exposure to cold, and other hardships in health. The experience of military life is that in trials of endurance soldiers who are slender and delicate in appearance are often the most reliable. The privations of long voyages, exploring expeditions, pioneer life, etc., are borne not infrequently as well by those who seem to have tender constitutions as by those of stronger mold; and in shipwrecks women and children have been known to survive hardened seamen. This ability to endure in health it is customary to refer to a something which is called *stamina*. In what this stamina essentially consists we can not say; our knowledge does not enable us to explain it. It is convenient to personify it, and it is therefore spoken of as if there were really such an entity. This physiological principle which we call stamina is the analogue of the pathological principle of tolerance.

As we can not explain the former, so in what the latter essentially consists we can not say. This comparison goes to show that when the apparently strong succumb to diseases which the comparatively feeble are able to endure, the fact is due not to occult morbid conditions, which are greater in the strong than in the weak. but to a lesser degree of tolerance in the former than in the latter.

Admitting that in what the tolerance of disease consists is not with our present knowledge fully understood. we know somewhat of its laws and of the circumstances which on the one hand promote and on the other hand impair it This knowledge is of great importance, and it therefore claims our consideration. The tolerance of certain diseases has laws relating to age. For example, the tolerance of typhus fever is greater between ten and twenty years of age than at other periods of life. While from ten to fifteen per cent. of persons of between ten and twenty affected with this disease die, it kills one-half of those who have it after fifty years of age. Typhoid fever is best tolorated between ten and fifteen years of age, and better between five and ten than after the age of fifteen. Small-pox is tolerated badly by childeren and the aged. The tolerance of acute pneumonia is much less in childhood and in old age than between these extremes of life. I cite these instances as illustrations to which many more might be added. The tolerance of certain diseases has relation to sex. Women, for instance, tolerate typhus fever better than men. The tolerance of certain morbid conditions is greatly affected by habit. A striking instance of this is the ability to bear uræmic poisoning if the accumulation of urea in the blood takes place gradually. A rapid accumulation may occasion sudden coma (apoplexy) and speedy death, the patient perhaps having been conscious of no ailment up to the moment of the apoplectic seizure; whereas, if the accumulation be gradual, coma and convulsions may not take place for a long time after the manifestations of minor uræmic phenomena. It is probable that the ability to tolerate urea is acquired by habit precisely as the habitual use of narcotic drugs enables persons to take with impunity enormous doses. The exposure to the special causes of various diseases within the limits of that amount of exposure necessary for their development induces, as is well known, an ability to tolerate these causes to any extent. This is the philosophy of what is called *acclimation.* A native or one who has long resided in a yellow-fever zone without ever having had yellow fever, is protected against it by having acquired tolerance of its special cause; in other words, he has become acclimated. Tolerance of the special causes of certain diseases comes with age; thus the contagion of scarlet fever very rarely causes the disease in the middle and advanced periods of life; and after fifty years of age, as a rule, the special cause of typhoid fever is inoperative. In fact, the expression *tolerance of the causes of disease* embodies all that we know, or rather it is an acknowledgment of our ignorance, of the rationale of the wonderful fact that certain diseases are experienced but once in a lifetime. Why the eruptive fevers—typhus and typhoid and yellow fevers—leave an insusceptibility in the organism to the special causes of these diseases is, with our present knowledge, a marvelous mystery. To say that this insusceptibility is in consequence of an acquired tolerance of the special causes is, of course, only to state the fact in different terms.

The laws of the tolerance of disease which have been mentioned are alike incomprehensible and beyond our control; but there are circumstances on the one hand promoting and on the other hand impairing this tolerance which are to a certain extent both comprehensible and controllable. Knowledge of these is especially important. In acute diseases which prove fatal through lack of tolerance this is promoted by those circumstances, which it is customary to say, tend to maintain the powers of life; and first in rank among these circumstances is the ability to ingest, to digest, and to assimilate food. Favorable hygienic conditions promote tolerance; namely, pure air, proper regulation of temperature, cleanliness, etc. *Per contra*, circumstances which are the opposite of these—namely, inability to take food or to appropriate it, and unfavorable hygienic conditions—impair tolerance. Moreover, events in the course of disease which are depressing, debilitating, or perturbating tend to impair tolerance; such as mental apprehension or discouragement, hemorrhages, vomiting, diarrhea, etc.

This statement respecting acute holds true equally in chronic diseases. In the latter, as in the former, the circumstances first in importance as promoting tolerance are those which are conducive to assimilation and nutrition. Hygienic influences, mental and physical, which tend to increase constitutional strength and vigor are important; and the reverse of these, together with depressing, debilitating, and perturbating events, impair tolerance. The dependence of tolerance on these circumstances is sufficiently evident in cases of all chronic diseases, but the fact is strikingly exemplified in certain cases of organic disease of the heart.

Every practicing physician knows that accuracy of diagnosis, although indispensable, is not alone adequate as a basis of positiveness in prognosis. Let us be ever so sure of the nature of a grave acute disease—an essential fever or an inflammation—let the diagnostic evidence be as complete as possible in regard to its degree, the extent to which parts are affected, the stage, together with a full knowledge of any existing complications; add to this an acquaintance with all that is known respecting the intrinsic tendencies of the disease, of its laws, and the results of statistical researches into its rates of mortality; there is still remaining that imponderable element which we call tolerance, on which, in individual cases, hinges the question as to death or recovery. One patient will die because he lacks a sufficient amount of that vital stamina which carries another patient safely through the disease. Hence the proverbial non-committalism of those physicians who regard as an unworthy trick an attempt to gain credit for superior acumen by means of a lucky hit at guessing. In like manner, to determine with precision the duration of life in cases of chronic diseases which must sooner or later prove fatal is beyond the bounds of scientific prescience. In addition, however, to laws and circumstances already adverted to, there are certain considerations which, as experience has taught, are to be taken into account in estimating tolerance. Habits of intemperance, for example, aside from the affections directly attributable thereto, diminish the ability to endure either acute or chronic diseases. This is also true of prolonged overtasking of body or mind; in other words, "wear and tear." Tolerance is affected in no small degree by the mental temperament, in respect of which different persons differ widely. A determined resolution to overcome disease often aids not inconsiderably in effecting recovery, and also promotes tolerance where recovery is impossible. On the other hand, apprehension and despondency have an opposite effect. These, with other considerations which might be added, enter into prognosis as connected with tolerance. They are considerations which bear upon prognosis in advance; that is, in the early stage of diseases. To determine the present condition as regards tolerance in cases of acute or chronic diseases is more easy. By means of existing symptoms we can gauge tolerance with considerable positiveness. In acute diseases the circulation, as represented by the pulse, furnishes the symptoms which have the most significance in this aspect. In cases of acute diseases which kill for want of tolerance the mode of dying is by asthenia or exhaustion. Now, the pulse may be said to be the thermometer of the vital powers. Failure of these—that is, the giving way of tolerance—is denoted by feebleness and frequency of the pulse, assuming that these characters are not dependent on heart lesions. Muscular prostration comes next as denoting impaired tolerance. It might be supposed that a high temperature of the body is to be considered as a sign of failing tolerance, but it seems more rational to regard this as causative rather than indicative of ebbing vital powers. In cases of chronic disease defective tolerance is shown by impairment of the forces carrying on the circulation, together with muscular debility and progressive emaciation. Skillfulness as a prognostician in cases of acute and chronic diseases depends on the ability to judge of tolerance by means of these criteria, in conjunction with the laws, circumstances. and considerations before referred to.

The application of the principle of tolerance to therapeutics is the more important of the practical aspects of the subject. In acute diseases, the danger relating chiefly to asthenia, generally tolerance is the objective point in the management. It is an object, in the first place, to avoid measures which will be likely to impair tolerance. Conservatism in medical practice is, in other words, the protection of tolerance. In the second place, it is an object to promote tolerance. Take, by way of illustration, the potential measure, blood-letting. If the protection of tolerance be an important object, this measure is thereby contra-indicated. Assuming that it will procure relief, the ulterior effect will be hurtful in proportion to the degree of danger of dying by asthenia. If, on the other hand, whatever danger there may be is not from asthenia, blood-letting is admissible, even if it be only palliative, provided the same palliation is not obtainable by other means which do not impoverish the blood. Governed by this rule, the abstraction of blood is contra-indicated, for example, in the essential fevers, in which recovery depends on tolerance; but, in view of its promptness and potency, it may be advisable in acute laryngitis, a disease which kills by apnœa.

It is a ready method of forming a judgment concerning the propriety of employing any potential remedy or measure of treatment to propound to one's self at the bedside, in a case of acute disease, the following questions: If this disease prove fatal, will it kill by asthenia or apnœa? If by asthenia, will the remedy or measure of treatment under advisement impair tolerance? If the answer to the last question be in the affirmative, as a rule the remedy or measure will do harm. It may be sufficient in many cases of acute disease to abstain from treatment that would impair tolerance; but if there be reason to fear that the vital powers are inadequate to carry the patient safely through the disease, then the promotion of tolerance becomes an important object of treatment. The means to this end are those which constitute what is commonly called the sustaining or supporting treatment. It is a corollary of facts presented already that alimentation holds the first rank among the supporting measures. Tonic remedies have a certain measure of importance as conducive to tolerance. Alcohol has its place of usefulness here. Without discussing the question whether alcohol be a food or a remedy, and divesting the topic of all moral considerations, that it is an important constituent of the supporting treatment must be admitted. Practically its usefulness as such consists in this: it promotes for a time tolerance; its use is indicated where there is evidence of failure in tolerance; it is often wise to forestall by its use the failure of tolerance; the urgency with which it is indicated is proportionate to the degree of danger from failure in tolerance. The proof of its usefulness is the evidence of increased tolerance without any of the phenomena of alcoholism or excitation. It is superfluous to add that all the favorable hygienic influences, mental or physical, which can be brought to bear upon patients affected with acute diseases tending to death by asthenia are useful by promoting tolerance. Next in importance to the measures which have reference to causative agencies, and those which are directly or specially curative, is to be ranked the protection and promotion of tolerance in the management of those acute diseases of which asthenia is the dangerous element.

In the treatment of chronic diseases how few are the known remedies which are directly or specially curative! We have some such remedies. Quinia and arsenic in malarial affections and in certain cases of neuralgia, mercury and the iodide of potassium in syphilis, the bromides in epilepsy, at once rise in the mind and bear testimony to the truth of this assertion. But it would be difficult to extend the list much. In most cases of chronic disease ending in recovery the result is not due to a direct or specially curative medication. We personify a fictitious entity when we attribute cure to nature or the *vis medicatrix naturæ;* yet it by no means follows that we are only passive spectators when our patients get well, and we can not assume to have controlled the disease by drugs. Drugs indeed often do much toward cure, although their action be not directly or specially curative. They procure palliation or relief of suffering, and they may be indirectly of great use by promoting appetite and digestion, supplying important constituents to the blood, favoring the elimination of noxious principles, etc. Operating in these ways, they may be said, in a certain sense, to do good by affecting favorably tolerance. In so far as tolerance is favorably affected, recuperation is facilitated; and here, as in acute diseases, next in importance to curative medication (whenever this is practicable) is to be ranked the protection and promotion of tolerance.

In the treatment of those chronic diseases which are incurable tolerance is pre-eminently the objective point. If a cure is not to be effected, the ends of treatment are, first, to prolong as much as possible the duration of life; and second, to render life as comfortable as possible notwithstanding the continuance of disease. These ends are far from being trivial. Shall a patient live for a few months or for many years? is a question the answer to which may depend on the knowledge and skill of the physician. This fact is not perhaps always sufficiently appreciated in medical practice. The recognition of incurable diseases is of prime importance. Herein diagnostic ability is essential to a rational management; and a rational management consists on the one hand in the avoidance as far as may be of everything which impairs, and on the other hand in the judicious employment of measures which promote tolerance.

All are familiar with the following maxims of Chomel, which have become classical: The proper aim of the physician is, first, not to do harm; and second, to try to do good. The physician is not to treat diseases, but patients affected with diseases. The former of these maxims inculcates, in other words, the protection and promotion of tolerance as a fundamental rule in the practice of medicine. The latter maxim inculcates this rule with still greater emphasis. In the treatment of patients affected with diseases, whether acute or chronic, the principle of tolerance should always pervade our thoughts and acts.—*Dr. A. Flint, in American Practitioner.*

Case of Emotional Insanity—A western paper has this item: It is reported that a Green Bay, Wis., dentist became emotionally insane while repairing a front tooth for a pretty woman, and kissed her. She told her husband, and he went round the next day and borrowed $300 of the dentist—on long time.

A Sprained Ankle Treated by Manipulation, with Comments.—On the 19th of last June, Prof. T. G. Thomas sent a young woman to me, who gave the following history of her case: On September 5, 1872, she fell from the top of a high step-ladder, and struck the floor upon both feet, in a standing position. The shock and pain together were so severe that she fainted at once. Dr. Metcalfe was called to see her, in the absence of Drs. Thomas and Walker, and prescribed the local application of ice, with other antiphlogistic treatment. Both ankles were painful and swollen, but the right was felt to be more seriously injured than the left, and time showed that this was really the case, for by the end of ten days, the patient recovered the use of the left foot, and, with the aid of crutches, was able to undertake a journey from New York to her home on the coast of New Jersey. By the time she arrived there the swelling in her right foot and ankle had become greatly increased, and the pain was intense; but a few days of rest, with cold applications, were sufficient to subdue this inflammatory exacerbation. During the following three months, her foot improved slightly, the chief treatment having consisted in liberal applications of stimulating liniments, so that she was beginning to make a little use of it while walking upon her crutches; but, in going down stairs one day, her right heel caught, she lost her balance, and fell down eight steps. The ankle at once became hot, swollen, and painful, and she felt that the little which had been gained since the original injury had been entirely lost by this unfortunate accident. The treatment which she received after this did not seem to accomplish much; and, becoming dissatisfied, she returned from the country to New York in January of the present year, and was placed under Dr. Henry F. Walker's charge. There was an immediate and decided improvement from the use of frictions with camphorated oil, and of the tincture of iodine, which he prescribed. The pain and swelling throughout the foot were diminished, and motion increased somewhat at the ankle-joint; but this articulation remained weak and painful whenever use was attempted, and a point just below the external malleolus was exquisitely sensitive to pressure or upon motion. Still, with an effort, she could limp across the room without her crutches, though suffering a good deal of pain at each step. On the 5th of February, at Dr. Walker's suggestion, she entered one of our hospitals for further treatment. At first, absolute rest in bed was enforced for two months; but when she got up at the end of this tedious confinement, although the swelling and pain had temporarily diminished, her foot and ankle proved to be as useless as before, and her general health had become decidedly impaired. Then galvanization was employed, and this was followed by repeated blisters, with some benefit as regards the pain; but still the efforts to use the limb in locomotion, which were attempted from time to time, invariably increased the swelling of the ankle and foot, and were attended by so much pain that they had to be abandoned. An attempt to master the difficulty by a uniform pressure with wet sponges had to be given up in less than twenty-four hours, on account of the unendurable pain which it produced. Meanwhile, her health continued to suffer greatly from the combined influences of pain, disappointment, and confinement in a hospital ward. Her appetite was lost, her bowels became constipated, and she had neuralgic twinges in the right leg, darting up and down between the great-toe and the knee. All local treatment was abandoned by her physicians, and quinine, iron, and other remedies of a like nature, were prescribed. But, as nothing did any permanent good, she was finally set down as an hysterical girl, who might do much better in the way of getting well if she would. Finding that no improvement was likely to be gained by a longer stay under general treatment, she left the hospital on the 17th of June, after a trial, of more than four months, of all the means which could be suggested for her cure, and with her mind made up to remain a cripple for life. In this plight, she was once more sent by her friends to consult Dr. Walker, but, in his absence, Dr. Thomas examined her ankle, and sent her to me for treatment by manipulation.

She walked into the room upon crutches, using the left foot alone to receive her weight, but resting the right foot lightly upon the ground as she progressed. Her face and lips showed that she was markedly anæmic, although she was quite stout. Her expression was sad and beseeching. Upon examination, many marked differences between the foot and ankle on the two sides were evident. On the right, there was an œdematous puffiness, which was sufficient to round off all the proper inequalities of outline in the foot, and almost to obliterate the malleoli. The foot had a bluish, dusky hue throughout, arising from a want of active circulation, and, around the external malleolus, there was a faint yellowish discoloration, like that which is left after an extravasation of blood in the cellular tissue. To the touch, the temperature of the right leg and foot was much lower than that of the left, the difference being more marked from the knee downward. Pressure along the arch of the foot caused a "soreness;" when applied along the skin below the outer malleolus, it gave rise to a sharp, darting, "sticking" pain. Passive movement at the ankle, even slight, in the direction of flexion or extension, and especially in that of lateral motion inward, excited the same sharp pain; lateral motion outward, however, was not painful. The toes could be moved passively in any direction without causing special suffering. Voluntary movement was confined to the toes, and even there required considerable effort for its performance. At the ankle-joint, flexion and extension could not even be attempted, for fear of the "sticking" pain below the external malleolus. In addition to the rational symptoms which have already been referred to, she said that for several weeks she had noticed that about half-past three o'clock in the afternoon there would be an increase in the general discomfort of the foot, and that a severe aching of the instep and great-toe would at the same time set in and remain for several hours, gradually diminishing in severity: during the past few days this ache had given place to a feeling of numbness, which followed a similar course. She had suffered from intermittent fever during childhood, but had had no chills for several years, until she entered the hospital, where she had three, for which she received a special treatment.

It seemed probable that the long duration of the lameness in this case had been determined in great measure by the repeated attacks of acute inflammation which followed at intervals after the original injury. As a result, both the amount of plastic exudation and the formation of fibrinous adhesions had been unusually large; the local nutrition had suffered severely after each new inflammatory attack, until the foot was reduced to a blue, cold, numb, and aching appendage, and the whole limb had become useless. The general health had failed, as a natural sequence to the local conditions, modified, perhaps, by the existence of miasmatic blood-poisoning. The case seemed in every way to be suitable for a successful treatment by manipulation; for, although involving general as well as local defects in nutrition, the indications pointed strongly to the sluggish circulation in the ankle and foot as the chief obstacle to improvement. Accordingly, on the 23d of June, it was commenced; but it was thought best not to begin the local treatment at once, and so a general kneading and shampooning of the limbs and body were used for a few days, until the patient had become accustomed to the process and to the manipulator. The actual treatment, therefore, did not commence until the 27th of June, when the following manipulations were performed: The whole limb, from the knee down, was first rubbed and kneaded for twenty minutes—lightly where the parts were tender, and forcibly where the pressure was well borne. The skin was sponged with water and dried with a towel whenever the epidermis became dry and heated by the friction, and was in danger of being rubbed off (it may here be remarked that oil is sometimes applied to the skin to prevent this accident). Then the manipulator passively exercised the toes in various directions, and very gently moved the ankle-joint in the direction of extension and flexion. The extent of movement in the latter was governed by the amount of pain which it produced, care being taken to avoid giving rise to more than slight twinges, which could be borne without suffering. These maneuvers occupied about five minutes, and were followed by the kneading and frictions a little more forcibly administered, which, in turn, gave way to the passive movements, alternating until the whole treatment had continued for an hour and twenty minutes. At its termination, not only was there a decided increase of motion in the direction indicated, but the pain which movement and friction produced was very greatly diminished, and the patient said that her foot felt more natural than it had done since it was first hurt. The next day, on her arrival, she hastened to tell me that she had waited in vain on the preceding afternoon for the usual attack of numbness, and that her foot had remained warm. The dusky blueness of the skin, however, was still present. This day the treatment was repeated for the same length of time, but the movements were given with more vigor, and rotation was added to flexion and extension at the ankle. These exercises were gradually increased each day in force and length of application, while the kneading and frictions were diminished, so that, after the first two days, the manipulations of each morning consumed about three-quarters of an hour.

The correctness of the diagnosis was fully confirmed. On the seventh day of treatment, passive motion of the ankle-joint was free in every direction, and entirely painless except when the foot was bent laterally inward to its fullest extent; the adhesions had all given way as the force of the manipulations had been increased, snapping audibly one after the other; the foot was warm, and had a natural appearance, the puffiness being nearly all gone, and the superficial veins once more showing themselves; she was able to wear the same sized shoe on the right as on the left foot; the discoloration which had been noticed around the external malleolus when the treatment was begun had altogether disappeared. A mechanical support was now applied to the ankle to prevent accident and give confidence, and she began to learn to stand and to walk with her right leg. At first, the knee could not be bent without considerable effort—an inability which is usual whenever a joint has for a long time been kept idle—and a few lessons in flexing and extending it became necessary. But progress was rapid, and by the 17th of July, after twenty-one days of treatment, she gave up the crutches altogether, and walked with a cane. Four days later her treatment was at an end, and she went to the seashore for the benefit of the bathing. On the 11th of September she visited me again to report her progress during the summer. Her countenance bore every sign of a marked improvement in bodily health. She no longer used any kind of artificial support, and walked without a limp. The right leg was still weak, of course, and her gait was therefore slow; but she was able to go about the house without difficulty, and to walk half a mile in the street without growing much fatigued. In fact, she was practically cured, although time, use, and caution against accident, will be needful to remove the remaining vestiges of her injury.

If this case had fallen into the hands of a "bone-setter," its treatment would have been varied somewhat in method, but the ultimate result would probably have been quite as satisfactory to the patient. Instead of requiring a week to break up the fibrinous adhesions, and put an end to the pain in the foot and about the ankle, he would, with a single dextrous but violent twist, have ruptured all the bands at once, and, after an instant of agony, have brought complete relief to his patient. The gentler passive manipulations would have come afterward, and their good influence upon the local circulation would have been reinforced by efforts at walking, which the bone-setter would have taken care to insist upon. His method never fails to impress the patient with his prowess as an operator; while the contrast of his confident, bold, and successful treatment with the changing and unsatisfactory means which the "regular doctor" has perhaps been trying for months, without effect, impresses the ignorant with a sense of mystery and magic, which is apt to be an important element in their admiration of medical skill. In this case, a violent and sudden rupture of the adhesions was not attempted, because they were not of sufficient strength to require it; they yielded readily enough to the passive movements which have been described. When such is not the case, however, the more active method should be employed, either with or without an anæsthetic.

In reporting this example, my object is not to show it as a remarkable result in an exceptional instance, but, on the contrary, to point out that, in the treatment which was used, we have a means that is capable of accomplishing the cure of chronic sprains with more ease and uniform success than any other method with which I am acquainted. It may be objected by the busy practitioner that it takes too much time for its application; but, on the other hand, when it is thoroughly and properly used, it is capable of subduing, with astonishing rapidity, the effects of an injury which, under the plans of treatment that are in common use, would linger on for days or weeks. The time which is lost by the manipulator is more than made up by that which the patient gains. With its employment in the treatment of recent sprains, I am not so familiar, and can not speak from personal knowledge, but the evidence of many distinguished surgeons in Europe has been unreservedly given in its favor.

The following extracts, from an excellent work upon the subject of manipulation as a means of treatment,* state with great clearness its relation to acute as well as chronic sprains: "In all the preceding articles I have invariably remarked that manipulations should be avoided whenever there were indications of existing inflammation; but this was not so with reference to sprains. Indeed, according to the opinion of MM. Bagin, Bonnet, Brulet, Elleaume, Girard, Lebatard, Magne, Mèry, Quesnoy, Ribes, Bizet, etc., who had recently published their observations upon sprains cured by manipulation, these affections should be treated from the commencement by this procedure. The pain, ecchymosis, and swelling, disappear, as if by enchantment. Some pushing matters still further, make use of manipulation even when a laceration of a malleolus exists, satisfied that they have advanced one step toward cure, by removing the pain and swelling, and by restoring the displaced tendons.

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* "Estradère du Massage," Paris, 1863, pp. 146, *et seq.*

"I admit that, if the distinguished physicians who have reported these facts had not persuaded me, by their complete accord, that manipulations were not injurious in such instances, I should have been very guarded in venturing to suggest them; but the facts are unquestionable: however strange they may be, we must admit them, and, as M. Bizet says, in his monograph upon the treatment of recent sprains by manipulation, impressed by Bauden's remark at the Academy of Sciences, that, in seventy-eight amputations of the leg or foot, performed by army surgeons, sixty arose from sprains as their starting-point, we ought to seize with eagerness each opportunity to try a means which, far from disappointing us, will give us unlooked-for success.

"From the observations which he presents, M. Bizet draws the following conclusions:

"'1. The cure by manipulation is the more prompt and certain in proportion as the remedy follows, so to speak, upon the accident.

"'2. The cure by manipulation may be wrought both in simple and in complicated sprains, except in the case of fracture of the articular extremities.'

"It is evident, from these conclusions, that M. Bizet does not prohibit the use of manipulations in the case of sprains, which are complicated by fracture of the articular extremities.

"I add a third conclusion, which M. Bizet has not drawn, and which, therapeutically considered, is very important: that is, that of all the means which are recommended for sprains, manipulation is the simplest, the easiest in application, and the most efficacious; for it cures a simple sprain at the first sitting, and seldom is its frequent repetition necessary.

. . . .

"Such are the surprising results which manipulation exhibits in the treatment of sprains—results which put manipulation far above all other methods of treating them.

"Pouteau had already recognized this, when he said: 'Sprains may be instantaneously cured by this means (manipulation), and I can not understand why our surgeons, ordinarily, are unsuccessful with this little procedure, which they give up to uneducated persons, who, notwithstanding, accomplish the end by rubbing the part, well oiled, with the thumb alone, or with the whole hand. I sometimes have this operation done at the beginning, and almost always with success.'

"At the present day, those physicians who have it in their power to bring this method into use are unwilling even to make a trial of it, or to do as much as those of Pouteau's time; and they suffer their patients to go to bone-setters, charlatans, fortune-tellers, and sprain-blowers, who accompany their manipulations with certain mysterious signs. But we ought not, as M. Nélaton says, 'systematically to reject a useful means, merely because it has been discovered and is employed by men who are unskilled in medical art.' The use of manipulation dates from the earliest times; it has been known in all ages: at the present day, physicians of the highest respectability employ it, recommend it, and publish the results from its employment in the journals. Why, then, reject a therapeutic means whose effects are so striking?"—*Wm. R. Fisher, M. D., in New York Medical Journal.*

Transmigration of Ascaridi.—Prof. G. Du Jordin reports in the *Nuova Liguria Medica*, No. 18, 1873, the escape of three ascaridi lumbricoidi from the urethra of a man. The patient was a writing-master, forty-two years of age. He began to suffer from intestinal fever about fifteen years previously, and from time to time had severe attacks of this kind. For some months before the escape of the worms from the urethra, he had had very severe enteric symptoms, with subsequent pains in the hypogastric, sacral, and anoperineal regions. Later the pains were referred more to the neck of the bladder. The pulse and respiration became accelerated, and the patient was confined to his bed. There was rectal and vesical tenesmus, and he could pass but a few drops of urine at a time. The three worms were passed during the space of ten days, after which the patient's health was gradually restored. One worm was eight cm., another twelve cm., and the third six cm. in length.

In No. 24, 1873, of the same journal, is related a case of Prof. Giusippi Tenderini's, where the same kind of worms were passed from the female urethra. At the age of fourteen, the patient, who was previously quite healthy, began to suffer from extreme weakness. She soon began to have severe pain in the left iliac region.

A hard tumor of considerable size, which soon developed, was referred to the broad ligament. Symptoms of cystitis and well-marked enteritis appeared. One morning, while the doctor was injecting the bladder, the patient complained of a severe piercing pain, and there issued from the instrument an enormous quantity of fetid purulent matter. The next morning this matter was more dense. The abdominal tumor continued to diminish in size, especially when pressure was made over it One day the patient experienced a piercing sensation at the urethral orifice, and, to her great surprise, saw issuing from it a worm of about seventeen cm. in length. Four more of the worms were subsequently evacuated, mingled with the purulent matter. The discharge of matter ceased when patient was twenty-three years of age, and the menses appeared. She regained her health, though incontinence of urine continued for a number of years, which was especially troublesome when she stood up.—*New York Medical Journal.*

On Limiting the Motion of the Chest in certain Lung Affections.—Dr. M'Crea, of Belfast, remarks that considering how much value is attached to rest in the treatment of diseases of many other organs, it seems strange that no attempt is usually made to follow out this line of management in diseases of the lung. On the contrary, in certain affections of this organ, it is not unusual to advise an increase of exercise, and persons who are considered to have a tendency to phthisis are not unfrequently put through a course of athletics intended to develop the chest. This has been sufficiently condemned by high professional authority, but the application of the principle of rest has stopped now. The attempt has not been made to moderate the ordinary and apparently necessary movements ot respiration. And yet Dr. M'Crea thinks the injurious effects of constant motion rendered even more frequent than natural by the disease must be admitted. From this point of view he advocates the use of anodyne cough medicines, which in promoting rest of the organ have a utility beyond the mere allaying of the patient's discomfort, important though that object be. Dr. M'Crea has thought it most feasible to attempt the moderation of movement in limited local affections of small portions of the lung, such as we meet with in phthisis. It would appear, he thinks, from all we know, reasonable to believe that the healthy masses of lung would be able, without inconvenience and by a slight increase of activity, to compensate for any diminution or cessation of function that might be induced in the diseased portion. For the purpose of modifying the lung motion, hernia trusses, bandages, weights, and special apparatus of various kinds suggested themselves, and were found, for various reasons, unsuitable. The greater number of his cases were observed in the Belfast Dispensary, and he had, therefore, no control over the patients, except on the occasion of their visits to himself. Popularity and the absence of irksomeness were, under these circumstances, most important desiderata in whatever mechanism might be adopted. Dr. M'Crea finally settled down to the use of the old-fashioned and popular emplastrum roborans, which was applied to the chest in various ways according to the seat of the disease. In affections of the apex he applies it in the following manner: Two strips of plaster, two to three inches broad, are required; one may be called the vertical, the other the horizontal strip. The former is applied up the front of the chest, over the clavicle, and down the back, and is applied first; the horizontal one passes under the axilla, going two or three inches beyond the sternum in front and the spine behind. Before the application of the strips, the patient is told to make a forced expiration, and the warmed plaster is immediately applied. The breathing must be limited, and no motion of the arm made for a few minutes after the application, in order that the plasters may have time to harden. Usually, great feeling of comfort is immediately experienced, and the cough is relieved. Dr. M'Crea gives the outlines of many cases successfully treated in this way.—*Dublin Medical Journal*, *Nov.* 1, 1873.

Treatment of Acute Rheumatism by means of Firm Dressing.—This mode of treatment, recommended by Scutin, and applied in three cases by Gottschalk in 1845, was forgotten, until again brought forward by Concato, and more recently by Heubner. It is the subject of a paper by W. Oehme in the *Archiv der Heilkunde*, whose observations have been made in *Wunderlich's Clinic*. The results of the applications of light bandages are—1. That the pains cease very soon after their application; the application consisting of pasteboard, occasionally, in children and patients in delirium, with a plaster of Paris bandage superimposed. As a rule, indeed, the pains cease in from twelve to forty-eight hours, or at latest after seventy-two hours. 2. The febrile symptoms are materially diminished in violence and shortened in duration. In a series of ninety cases, whilst the average duration of the febrile symptoms in the cases treated without the firm dressing, and for the most part with digitalis, was 9.3 days in hospital (plus 4.6 days before admission), those treated with firm dressing had a duration of 6.1 days. A fall of temperature usually occurs after twenty-four or forty-eight hours after the application of the dressing. 3. The combination of the reduction of the pain and of the duration of the fever caused a shortening of the total duration of the disease, and hence acted prophylactically in preventing fixation of the joints. Lastly, the profuse sweats characteristic of the disease seem to be diminished.—*Archiv der Heilkunde*, 1873, xiv, p. 385.

Intussusception.—Mr. Jonathan Hutchinson details a successful case of abdominal section for the relief of intussusception.

The patient was a child, aged two years. The intussusception had commenced at the cæcum, and was of such length that its extremity, presenting the inverted ileo-cæcal valve, was extruded several inches at the child's anus. The condition had been one month in course of development; latterly, the case had been treated as one of prolapsus, and attempts had been made to keep the bowel in place by means of a cork pad. Efforts to effect reduction by enemata having failed, the child was put under chloroform, and the abdomen was opened in the middle line below the umbilicus. The intussusception was then easily found, and as easily reduced. The after-treatment consisted only in the administration of a few mild opiates, and the child made a rapid recovery.

In three other similar cases the intussuscepted bowel could be easily felt by the finger in the rectum, and in all three, in spite of persevering treatment by injections, bougies, etc., the patients had died unrelieved. From the consideration of a considerable number of cases bearing upon the diagnosis and treatment of similar lesions, Mr. Hutchinson comes to the following conclusions:

1. That it is by no means very uncommon for intussusception to begin at the ileo-cæcal valve, and to progress to such a length that the invaginated part is within reach from the anal orifice, or even extruded.

2. That the prognosis of cases of intussusception varies much: first, in ratio with the age of the patient, and secondly, with the tightness of the constriction.

3. That in a large proportion of the cases in which children un-

der one year are the patients, death must be expected within from one to four or six days from the commencement, and is usually caused by shock or by collapse from irritation, and not by peritonitis.

4. That in many cases it is easy, by estimating the severity of the symptoms (vomiting, constipation, etc.), to form an opinion as to whether the intestine is strangulated or simply irreducible.

5. That in cases of strangulated intussusception, whilst there is great risk of speedy death, there is also some hope that gangrene may be produced, and spontaneous cure result.

6. That in cases in which the intussuscepted part is incarcerated and not strangulated, there is very little hope of the occurrence of gangrene, and it is probable that the patient will, after some weeks or months, die, worn out by irritation and pain.

7. That the chances of successful treatment, whether by the use of bougies or by the injection of air or water, are exceedingly small, excepting in quite recent cases; and that if the surgeon does not succeed by them promptly it is not likely that he will succeed at all.

8. That the cases best suited for operation are those which have persisted for some considerable time, and in which the intestine is only incarcerated; and that these cases are also precisely those least likely to be relieved by any other method.

9. That in such cases, after failure by other means, an operation is to be strongly recommended—the only circumstances likely to cause difficulty being (1) tightness of the impaction of the parts, (2) the existence of adhesions, and (3) the presence of gangrene.

10. That in very severe cases, or where the stage is greatly advanced, it may be wiser to decline the operation and trust to the use of opiates.

11. That the operation is best performed by an incision in the median line, below the umbilicus.

12. That in cases of intussusception in young infants (under one year of age) the prognosis is very desperate, scarcely any recovering excepting the few in whom injection-treatment is immediately successful, whilst a large majority die very quickly; and that this fact should be held to justify a very early resort to operation in such cases.—*The Medical Press and Circular*, *November* 26, 1873.

Editorial.

Medical Examination.—The Boston *Medical and Surgical Journal* announces that the entire force of the fire department of that city is to be subjected to a medical examination, with a view to eliminating therefrom its inefficient members. The movement is a wise one, and commends itself to our city authorities. The United States government requires men who enlist in the army or navy to pass a medical examination, in order that the service may not be incumbered with men who are unable to do duty when called upon. So should our fire department and police force be made up of physically sound men, for we do not know when they may be called upon to protect us and our property from the fire-fiend, or to quell a riot. We need physically sound men, who will take pride in making their *corps* the best, in every respect, that is in the country. Our police and fire commissioners have honored themselves in appointing many men who would be a credit to any similar department in the land. Still, there is room for improvement, and we suggest the above feasible plan as an aid to their efforts.

Druggists Prescribing over the Counter.—To the Druggists' Circular: —Being an old reader and subscriber, I wish to ask your opinion as to druggists prescribing and selling over the counter. I know, from what I have seen and read in your valuable journal, that you totally disapprove of anything of the kind being done in the city; but with us country druggists, do n't you think you might let up on us a little bit? Yesterday, for instance, a neighbor of ours took by mistake a decoction of stramonium seeds, and our nearest doctor—three miles off—being away, I advised an emetic of salt and warm water, and a dose of castor oil. Being called on in the night, the man complaining of strangury, I ordered an infusion of buchu, in the usual dose. The man is better. Now, what is a body to do? If I had let the man die, the community at large would have ostracized me, or, in plainer words, would have tarred and feathered me; and if I had taken the case and had failed, they would have done the same; and if I had taken the case and succeeded, as I did, the FACULTY would have looked on with amazement at the astounding impertinence of a vile dispenser of drugs. Now, what is a country druggist to do? V. M.

MARYLAND, *December*, 1873.

[It is against the rules for a druggist to prescribe over the counter in a city, where a physician can just as well be consulted. But, in urgent cases, in a city as well as in the country, the plain duty of a druggist is to do all in his power to alleviate suffering and save life. This is well recognized by all, for the knowledge of antidotes is a part of the pharmaceutical education, so that in poisoning-cases no time may be lost in administering the first remedies, until a physician's attendance can be obtained.]

In connection with the above, we would inquire whether the apothecaries of this city have a code of ethics? If they have, is there any reference in it to the practice of "prescribing over the counter?" We know that it is common among many of our pharmaceutists, not only to prescribe, but to recommend quack preparations which they may have for sale. The custom is reprehensible, and we protest against it. So long as apothecaries depart from their legitimate duties in this regard, they will never be able to elevate their business to a profession, which many are making laudable efforts to accomplish. The art of pharmacy is important to the success of physicians, and we are greatly interested in its progress and improvement; but it will never be advanced by "prescribing over the counter," or advising the use of quack preparations. The editor's remarks in the above extract, in regard to cases of emergency, are apropos.

Southern Ohio Lunatic Asylum.—Dr. John H. Clark has lately been elected superintendent, *vice* Dr. S. J. F. Miller, resigned. Dr. Clark takes charge of the Southern Asylum with a good reputation for ability and the peculiar qualifications necessary to success in such a position. In this connection, we can not but express a feeling of indignation toward our state legislature in paying the superintendents of our lunatic asylums the small salary of $1,200 a year. Much is said about increasing the salaries of our judges and other officials; but never a word about a class of men equally worthy, and who should be recognized as the very ablest men in the medical ranks—men who are in a measure required to ostracize themselves from the world, and to whose care are committed the most troublesome class of unfortunates that ever a physician is called to deal with. Furthermore, the superintendent of one of our state asylums should be a man that the profession would look to as authority on all subjects pertaining to psychology. The trustees of the asylums place in the care of the superintendent not only several hundred lunatic patients whose physical as well as mental condition he is supposed to be familiar with, but also a property worth several hundred thousand dollars, and to annually disburse from one to two hundred thousand dollars for the maintenance of the institution, all for the sum of $1,200 per annum. Would any private corporation, requiring the same skill and integrity from its superintendent or president, regard its capital or business as safe, if it paid its head no more than our asylum superintendents receive? We think not. Men managing that amount of property for corporations in this city, receive salaries of from $4,000 to $12,000 per annum, and yet no greater skill or responsibility, and not a tithe of the education, is required of them that is demanded of a lunatic asylum superintendent. We know something about this matter, having had a short asylum experience. Call upon your representative in the legislature, and present this matter to him in its proper light. We feel that it is not only an injustice to the asylum superintendents, but an indignity to the medical profession.

We ask the practical attention of the profession in the State of Ohio to the following "Circular" and "Memorial," which explain themselves. They relate to a subject that is of importance to every practicing physician and surgeon in the State. In this city, memorials for the signature of physicians are in the hands of Drs. Mussey, Dawson, Reamey, and the editor of the LANCET AND OBSERVER:

CIRCULAR.

DEAR SIR:—At a meeting of the Medical Association of Northeastern Ohio, on the 4th day of November, 1873, the undersigned were appointed a committee to memorialize the legislature on the subject of a law to protect surgeons against unjust and malicious prosecutions for malpractice. The committee were instructed, as far as practicable, to secure the signature of every regular physician in the State. We therefore send you the accompanying memorial, and appeal to your interest in the progress of legal medicine, to secure the name of every regular physician in your county, and such other influential persons as you may deem proper. The propriety of making a personal appeal to your representatives is also worthy of consideration. We believe we can succeed if we make an earnest and persistent effort. This memorial, with signatures, should be forwarded to your representative in the legislature some time in January next.

Respectfully yours,

L. SLUSSER, M. D.
S. HUDSON, M. D.
W. S. BATTLES, M. D. } *Committee.*

MEMORIAL.

To the Honorable, the General Assembly of the State of Ohio :

The undersigned, physicians of ——— county, Ohio, pray your honorable body to devise some measure of protection to us against unjust and malicious prosecutions for alleged malpractice. In a large majority of instances these cases are instigated by rival practitioners from envious motives, or by the prosecutor for the purpose of levying black mail, and for the reason, that being irresponsible, it costs them nothing, result as it may. Statistics prove that comparatively few of the aggregate number result in a verdict for the plaintiff, and as a consequence, the court costs must come off the tax-payer. To suppress this gross injustice, we respectfully ask that a law be enacted embodying the following features:

1. That in every case of alleged malpractice the question shall be referred to a board of three medical men—one to be chosen by the patient, or his or her next friend, one by the surgeon charged with malpractice, and these two shall make choice of an umpire.
2. That it shall be the duty of these three arbitrators, after hearing the testimony on both sides, to give the written opinion of the majority to the contestants in the case. If this opinion be adverse to the charge of malpractice, and the plaintiff shall still proceed to an action at law—that then he be required to give bail for the costs; and in the event of a failure to establish his case, he may be made to answer in damages to the defendant for his loss of time and expense incurred in the defense.

We have received the prospectus of two new journals. The "*Archives of Electrology and Neurology*," Editor George M. Beard, A. M., M. D., of New York, devoted to the special departments of electricity in its relations to medicine and diseases of the nervous system. It will be published semi-annually, each number containing from one hundred to one hundred and fifty pages octavo

Terms not yet announced. Letters of inquiry should be directed to George M. Beard, M. D., No. 8 West Thirty-seventh street, New York.

The other is a western enterprise, "*The Chicago Journal of Nervous and Mental Disease*," published quarterly, each number to contain from one hundred to one hundred and fifty pages octavo. Editors—J. S. Jewell, M. D., Professor of Nervous and Mental Diseases in the Chicago Medical College, and Henry M. Bannister, M. D. Both editors reside at Evanston, Cook county, Illinois, where they will receive communications in regard to the journal.

We need hardly say that we wish both the above journals great success in contributing to the advancement and spread of scientific knowledge in the medical profession.

If you have not subscribed for the *London Lancet*, do so at once. With LANCET AND OBSERVER, $7 per annum.

Godey's Lady's Book is each year becoming more of a favorite with the ladies. Its literature is entertaining, and the fashion plates, with accompanying directions, can hardly be dispensed with. Terms, with LANCET AND OBSERVER, $5.50 per annum.

The St. Nicholas is our idea of a "Boys and Girls'" magazine. Its articles afford not only amusement to the junior members of the household, but instruction and entertainment to the seniors as well Terms, with the LANCET AND OBSERVER, $5.50 per annum.

Married.—Kellar—Endres—Thursday evening, January 1, 1874, at Dayton, Ohio, by the Rev. David Winters, D. D., M. B. Kellar, M. D., to Sallie Endres, all of Cincinnati. No cards.

Obituary.

Tribute to the Memory of Dr. B. S. Brown—Meeting of the Profession.—At a special meeting of the Logan County Medical Society, the following preamble and resolutions were drafted and adopted as an expression of the feeling of the society in regard to the death of our late colleague and ex-president, Benjamin S. Brown :

WHEREAS, It has pleased Divine Providence to remove, by means of death, Dr. Benjamin S. Brown from our midst.

1. *Resolved*, That in the death of Dr. Brown the medical profession of Ohio has lost a shining ornament, and a noble and learned man.

2. That the community is bereft of a scientific and careful medical counselor, always ready to extend the valuable aids of his learning and ability to the poor, in charity and sympathy, as well as to the rich.

3. That society at large has lost a most influential, honest, and consistent advocate of every moral reform, and every intellectual improvement known to the most enlightened and advanced era and age. Every advancement, in short, that vice, or sorrow, or ignorance, or poverty seemed to demand for the disenthrallment of human nature, and the purification of the heart, enlisted his earnest sympathy and active support.

4. That while we bow, in humble submission to this decree of the Almighty, we will ever cherish a remembrance of him as the kind friend, the honorable competitor, the able counselor, and the generous helper, and will strive to emulate his amiable gentleness, high moral excellence, and religious integrity.

5. That his industry as a worker, his benevolence as a citizen, and his devotion to the honor and glory of his profession, furnish an example worthy the imitation of the young, and well calculated to strengthen the arm of riper years.

6. That we hereby express our deep sympathy with the family and relatives of the deceased, and that as a mark of respect, after the adjournment of this meeting, we call at his late residence, and in person tender our sympathy and condolence to his bereaved companion.

7. That these resolutions be spread upon the record of the society, and copies be furnished for the Cincinnati LANCET AND OBSERVER, and also for our county papers.

T. L. WRIGHT,
D. WATSON,
B. B. LEONARD, } *Com.*
W. D. SCARFF,
JAS S. ROBB,

W. H. CRETCHER, *Sec'y.*

Obituary.—It is our sad duty to chronicle the death of Dr. SAMUEL W. BUTLER, of Philadelphia. He died on the 6th of January, 1874. Dr. Butler was well known as the editor and publisher of the *Medical and Surgical Reporter.* He also published the *Physician's Pocket Record, Half Yearly Compendium of Medical Science, The Physician's Prescription Record,* and *The Physician's Annual.* His last literary undertaking was the preparation for the press of *The Medical Register and Directory of the United States,* "a work of great labor, which he left in a forward state of completion."

The Efficacy and Mode of Employing Collodion in Erysipelas.—M. Broca has again recommended the application of collodion in cases of erysipelas in the following manner: A layer of collodion should be applied round the margin of the erysipelatous blush for a distance of from six to eight centimetres, and also over the affected part. The object of the former is to exercise a circular compression. so as to separate the affected part from the rest of the cutaneous surface. It is necessary to examine these layers once or twice daily, and to repair the fissures which occur. The collodion used must be free from oil. It is rare to see the erysipelas spread after these applications, under which it is in a short time extinguished.

At some large hospitals the ethereal solution of nitrate of silver is much used, and with fairly good results. The objections to it are two-fold: first, on account of its blackening effect, which prevents one seeing if the disease be spreading; and secondly, because of its disfigurement, especially when applied to the face.

Reviews and Notices.

A System of Midwifery, including the Diseases of Pregnancy and the Puerperal State. By WILLIAM LEISHMAN, M D., etc. For sale by Robert Clarke & Co. Price, in leather, $6.00. Published by Henry C. Lea, Philadelphia.

We have taken no small amount of pleasure in reading this most excellent work on obstetrics—a work which the author in the preface intimates, is intended to be in the English language what *Cazeaux* is in the French, and *Scanzoni* in the German. That he has aimed very high and attempted much, is evident, judging from the high regard with which these works are held. That this work is a complete system of practical obstetrics with the diseases of pregnancy and the puerperal state, written in a clear, concise, and elegant style, is apparent from a superficial examination of its contents.

Chapter I gives a short running history of obstetrics, together with what is seldom found in obstetric literature, an account of the comparative anatomy of the pelves in mammalia. The descriptions of the anatomy of the pelvis—its development, mobility of its articulations; the organs of generation, external and internal, including the mammary glands; menstruation, development of the ovum, are more than ordinarily good. The chapters on the symptoms and signs of pregnancy are very readable, and contain much trustworthy information. That pertaining to the abnormal development of the ovum, in which molar pregnancy is disposed of, together with the topic of false moles from the uterus, bladder, and vagina, so imperfectly treated of by most authorities, is here well digested.

Chapter XVI, on the management of natural labor, contains as clear, concise, and thorough description of the duties and attention required by the accouchee as we have ever read.

We are glad to see in this work the teaching in opposition to the old method of "support of the perineum." Although this is contrary to the instructions of the distinguished *Ramsbotham*, it is in accordance with those of *Denman*, *Tyler Smith*, *Graily Hewitt*, *Meadows*, *Churchill*, and others equally eminent in Great Britain.

The support of the perineum, as ordinarily taught and practiced, we regard as a relic of "meddlesome midwifery," and in the language of *Leishman*, "irrational, useless in all cases, and undoubtedly hurtful in some." Not that the practitioner is to remain idle at this, the end of second stage of labor, but he is to carefully *watch* the *progress* of the head with the fingers; *restrain* its passage, if necessary, by a direct application of the hand to the head, and finally *direct* its movements to extrusion. The part of the placenta first delivered at the os uteri is the edge and not the fetal or amniotic surface, as usually supposed; the placenta in its shortest diameters taking the short diameters of the uterus. This is easily proven by notching the presenting part and subsequently examining it. In a few words, it is but necessary to watch the process as conducted by nature, to determine the true mechanism. These are the views also entertained by *Leishman*, previously enunciated by *Lemser*, *Cazeaux*, and still more recently and fully by *Matthews Duncan*. Other than this mode of placental delivery is, usually, owing to unnecessary and hasty traction upon the cord.

But when an author speaks of the various methods for effecting delivery of the placenta, he is quite behind the times. No mention whatever is made of that most valuable of all means—expression, after *Crede's* method.

Chapters XVII–XX inclusive, embracing nearly one hundred pages, are devoted to a description of the mechanism of labor in the various presentations and positions of the fetus. Space will not permit us to speak at length concerning these, containing so much of value to the obstetric student, who would thoroughly understand his cases in each individual manifestation of mechanism. Suffice to say, they are the strongest parts of the whole book; really worth more than the price of the complete volume. Several years ago, *Leishman* wrote a monograph on the "Mechanism of Parturition," which then gave him an enviable reputation as a careful observer. With all due praise bestowed upon these masterly pen-sketches, we can not regard them as the equal of our distinguished contryman *Hodge*, than whom we have studied no one with more interest or greater profit.

The usual and old classification of occipito-posterior positions, breech presentations, etc., among cases of natural labor, is adopted. This is, in our judgment, a serious error. Simply because nature *is* competent to effect delivery under such circumstances, is not reason satisfactory. Is she not competent, for that matter, to secure spontaneous version, and even spontaneous evolution? Although delivery is completed unaided in the majority of instances in occipito-posterior positions of the vertex, the occiput impinging upon the posterior inclined planes of the pelvis, with consequent posterior rotation, and also in breech presentations—nevertheless it is accomplished only with much pain, after a very long labor, with serious injury to the integrity of the maternal tissues and great danger to life of the child. The student should be taught that such cases are unnatural, because requiring more than ordinary watchfulness, care, and timely assistance judiciously applied.

In the employment of many of the obstetric instruments, our author is conservative and his advice safe. He discards the use of the blunt hook in breech cases—the placental forceps and crotchet for the delivery of the placenta.

The subject of post-partum hemorrhage, one of the most important which engages the attention of the obstetrician, is very comprehensively treated. In the treatment of this accident almost every worthy means in prophylaxis and direct management is mentioned and discussed. We would, however, suggest that the hypodermic use of ergotine to be far superior in many particulars to the ordinary mode of administration of the drug. We need a remedy—not to be lost in vomiting—at once rapidly absorbed, and prompt to act.

Recommendation is made as to the introduction of the hand within the uterus to secure contractions and turn out the clots. When the last condition exists to any degree, and external compression with kneading are incapable of emptying the uterus, there can not be any doubt as to the propriety of the introduction of the hand.

The intra-uterine injections of iced water, and astringent solution of the perchloride of iron, are regarded as justifiable and efficacious. Here, doubtless his course of treatment may be criticised by some. Dr. Barnes, in '57, recommended the employment of the perchloride of iron injection in post-partum hemorrhage. Since which time it has been freely used in Great Britain and this country, and with results most decidedly in its favor. Certainly *Leishman* has abundance of authority at home to support him, in the names of *Barnes, Murray, Phillips, Playfair, Steele, Giles, Chambers*, and *Williams*.

Finally, *transfusion* is spoken of, and the best of all appliances at present known with which to perform the operation—*Aveling's*—described.

Chapter XXVII, on deformity of the pelvis, to the practitioner is unsatisfactory. In few, if any departments of obstetric medicine, have greater advances been made than in the management of labor with pelvic deformity. The indications based upon practical experiences—statistical information—are now quite well understood as to the choice in application of the forceps, operation of craniotomy, turning, with or without the previous induction of premature labor. This chapter does not give these indications as clearly as the present state of obstetric science would warrant.

The subjects of puerperal eclampsia and puerperal fever are well disposed of.

In conclusion, we feel like recommending this work of *Leishman* to both students and practitioners, as one of the best, to say the least, in the language. C. D. P.

The Toner Lectures, on the Structure of Cancerous Tumors, and the Mode in which Adjacent Parts are involved. By J. J. WOODWARD, Ass't Surg. U. S. A. Delivered March 28, 1873. Published by the Smithsonian Institute. 8vo, pp. 40.

Dr. Woodward's lecture is the first result of Dr. Toner's generous liberality in donating a fund, "the interest of which is to be applied for at least two annual memoirs or essays relative to some branch of medical science, and containing some new truth fully established by experiment or observation."

In Dr. Woodward we recognize one of the most careful and accurate pathological microscopists of our country, and his studies of the anatomy of cancer growths deserves the attention of the medical profession. The author gives a summary of the labors of Schwann, Rokitansky, Virchow, Cohnheim, Koester, and others, in perfecting our knowledge of the histology of cancer, following with his own investigations, in which he arrives at the same conclusions with them, that there is no such condition as a cancerous cachexia; but just here we are reminded that in the beginning of the lecture Dr. Woodward requests us "to put all questions of practical application out of our minds, and join him in considering the subject from the point of view of medical science, rather than from that of medical or surgical art." It is from the results of just such investigations as those of Dr. Woodward and his co-laborers in microscopical pathology, that the practical physician and surgeon are enabled to make accurate diagnoses in obscure cases.

Dunglison's Medical Dictionary. By ROBLEY DUNGLISON, M. D., L. L. D. Enlarged and thoroughly revised by Richard J. Dunglison, M. D. Philadelphia: H. C. Lea & Co. For sale by Robert Clarke & Co., Cincinnati. Price $7.50.

The editor of the present edition well says in his preface that, "The progress of medical science, during the few years past, has been so remarkable, and the amplification of the nomenclature so extensive, that another revision of the medical lexicon had become a work of absolute necessity. The present edition includes more than *six thousand* subjects and terms not embraced in the last, and although the capacity of the page has been enlarged, the volume has been increased by one hundred pages. Particular attention is devoted to the derivation and accentuation of terms, and the present edition may be considered a complete pronouncing dictionary of medical science." Language would fail us should we attempt to present a tithe of the value of this king among the books necessary to the completion of a physician's library. No other volume can take its place, being complete and up to the times. With pleasure we notice how well Dr. Richard J. Dunglison has completed this great work of his honored father, the late Robley Dunglison, M. D., L. L. D.

A Hand-book of the Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M. D., B. Sc., M. R. C. P., Assistant Teacher of Clinical Medicine at University College Hospital, etc. 1 vol., 8vo. cloth. pp. 1052. Lindsay & Blakiston. 1874. For sale by Robert Clarke & Co. Price $5.00.

It requires no little courage on the part of an author to attempt a work on the theory and practice of medicine, as it would necessarily be compared with the complete works of Flint, Watson, and others. However, Dr. Roberts has given us a work that is of real value, and especially for the use of students is the book a good one. As a convenient book of reference for those attending clinical lectures it is superior. The simplicity with which diseases and their relations to internal organs are described, is commendable. The author has had a very large hospital experience, which he turns to good account; his style is clear, and manifests a familiarity with contemporary medical literature As a hand-book we observe but one prominent defect—there are very few prescriptions, but in their stead there is given a general plan of treatment.

Transactions of the Michigan State Medical Society, 1873. Series 1, Vol. VI. A. B. Palmer, A. M., M. D., President; George E. Ranney, M. D., Rec. Sec'y.

The address of the president, on the application of scientific knowledge to the benevolent objects of our profession, is well worth perusing by the profession.

The articles on hygiene, by Drs. H. O. Hitchcock and R. C. Kedzie, are elaborate scientific productions, directing special attention to the government of schools as affecting, the development of children physically, mentally, and morally, and the application of hygienic laws to the construction, warming, ventilation, and sewerage of school-buildings. These are each important subjects, and are well set forth by the essayists, showing that the conditions of health in the public schools are absolutely dependent on the officers of the law—that while "every man is lord of his own castle, he may make it as unhealthy as he will," the well-being of the State demands the best possible hygienic conditions for the health of the young who are under its control in the schools.

Prof. Edward W. Jenks gives a very complete history of the disease known as coccyodynia, reporting a case in which he performed the operation of extirpation of the three lower bones of the coccyx, which almost completely relieved his patient, and thought it would result in a perfect cure. The operation was performed only two weeks previous to the report of the case.

The article on aural catarrh, by Eugene Smith, M. D., of Detroit, shows the author's familiarity with his subject, in which we think he very justly criticises the profession for their apathy, if not ignorance, in regard to diseases of the ear, showing that patients suffering with suppurative otitis media are generally advised by the family physician to "*let it alone, you'll outgrow it*," or something equally evasive, when asked what they should do for relief. The author shows the importance of immediate treatment of the disease, not only on account of its affecting the hearing of the patient, but endangers their life.

Altogether, the report is one that does credit to the profession of Michigan.

THE CINCINNATI

LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.

VOL. XVII.—MARCH, 1874—NO. 3.

Original Communications.

Art. I.—Of a late Epidemic of Child-bed Fever; together with an Inquiry into the Connection, said to exist, between Puerperal Fever and Erysipelas.

By THOMAS C. MINOR, M. D., Cincinnati, Ohio.

"*Si mulieri pregnanti fiat in utero erysipelas, lethale est.*"—HIPPOCRATES.

SYNONYMS.*—'Erusipelas (*Greek*); Febris erysipelatosa (*Sydenham*); F. erysipelacea (*Hoffmann*); Rosa (*Lennert*); die erysipelatose dermatitis (*German*); Erysipele (*French*); Risipole (*Italian*).

POPULAR NAMES.—Ignis sacer (*Latin*); die Rose (*Germany*); the Rose (*Scotland*); Saint Anthony's fire (*England*); Black tongue (*United States*).

Child-bed Fever, Puerperal Fever (*England*); Fievre Puerepale (*France*); Febbre Puerepale (*Italy*); Fiebre Puerepale (*Spain*); Kindbett fieber (*Germany*); Febris Puerparum (*Latin*).

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* Compiled mostly from Reynolds, Robin & Littre, and Dunglison.

Some months since, a discussion occurred at the Cincinnati Academy of Medicine, in regard to the propriety of a physician's attending a confinement case, who might have been in recent attendance upon patients suffering from erysipelas. The differences of opinion among those present, on that occasion, induced the writer to look up the subject a little, on his own account, in order to obtain further enlightenment. In doing this, it became necessary to overhaul certain books, among which were the volume on "Vital Statistics of the United States,"* and the "Health Reports" of various cities. From these were compiled various tables, at an infinite amount of trouble. These tables were then analyzed and various deductions drawn therefrom, some of which confirmed various ideas emitted heretofore in regard to eysipelas and puerperal fever; others contradicted conclusions arrived at by various authors: as thus, for instance, confirming Dr. Drake's opinion that erysipelas, *in the United States*, was not confined to any particular geographical section, subject to no particular climatic influences, and that the disease was most prevalent in winter and spring; while Duges,† who as early as 1828 spoke of the prevalence of puerperal peritonitis in certain months (*i. e.*, January, February, October, and November), finds a partial support for his statement. On the contrary, the positive statements of Chomel, Blache, and numerous other writers, that erysipelas is more prevalent among women than among men, finds here a point-blank contradiction.

The principal objective point, however, was the study of the connection which is said to exist between puerperal fever and erysipelas. In the feeble attempt I have made to elucidate this problem, much that was curious and new, as far as regards the two diseases in "*the States*," was revealed; and if I was not successful in clearing up the mystery which enwraps the subject, I have at least partially satisfied a natural curiosity and become impressed with certain crude ideas. A local epidemic of puerperal fever in this city, was the first food I had for reflection. This was digested as carefully as possible, and the results noted and arranged. Next, a table of mortality from erysipelas and puerperal fever, in each state of the "Union," was compiled from the mass of figures given in the ninth census. From various sources, principally "Government Reports" and Blodget's magnificent work on Climatology, the variation of temperature and rain-fall in the different states has been noted; then a rough attempt has been made at giving the astronomical climactic boundaries of various sections, with the character of the country, sectional topography, etc., in the hope of throwing some light on the subject. In this latter attempt I have been most signally unsuccessful, and, in the *amateur role* of "Medical Geographist," "*his first appearance on any stage*," I am doubly open to criticism. Nevertheless, in the hope of adding my mite to the general fund, I may apologize for a mass of dry and uninteresting statistics here offered, excusing myself in the words of Paulus Ægineta: "*Non quod de novo quid addere aut á veteribus prœtermissum sed propriœ exercitationis causâ.*"

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* Ninth Census, Volume II, Washington, 1872.

† Memoirelu a l'Academie Royal de Med., October, 1828.

A rough, historical outline of both diseases will be first given, after which the opinions of various authors, in regard to the connection of the two diseases and their contagious properties, followed by a study of the two diseases as they prevailed in the different states in the "census year," ending June 1, 1870; and last of all, a study of both diseases as they have appeared in Hamilton county, for the past eight years, including the local epidemic of 1872.

Historical.—That puerperal fever was not unknown to the ancients, is a matter of fact; for in its sporadic form it has been described by Galen, Hippocrates, Avicenna, and others. Hulme* quotes extracts from Hippocrates, Galen, and Ætius to prove this point. He also refers to "Plater (1602), Lennert (1656), Riverius (1674), Sylvius (1674), Willis (1682)." Churchill refers to Raynaldes' Translations of Eucharius Rhodion; also to the Child Bearer's Cabinet (1653), Strother (1718), Cooper (1725), Sydenham (1726), Boerhaave (1737), Hoffman (1734)." Strother, according to Hulme, first gave the name, *Puerperal Fever*, to the disease. Dr. Francis Adams,† in his translation of Hippocrates, refers in an editorial foot-note to the case of "Thasus, wife of Philinus" (Case IV), as being a well-marked case of puerperal fever. The curious reader is referred to him for a fuller account. The number of references might be multiplied, but let these suffice for the present, to convince us that sporadic puerperal fever was not altogether unknown to the older writers. References to sporadic erysipelas are abundant in almost all ancient works. Drs. Churchill* and Meigs† give almost complete lists of the puerperal fever epidemics of the past; and in glancing over their elaborate tables, we see that in *France* there were epidemics in 1664. 1746, 1750, 1774, 1775, 1780, 1781, 1782, 1786, 1816, 1818, 1819, 1820, 1830, 1834, 1838, 1843, 1844, 1845, 1846. These various epidemics were mostly in Paris, Rouen, Lyons, Rennes, and Gratz. In *England* there were epidemics in 1760, 1761, 1765, 1769, 1770, 1771. 1780, 1783, 1787, 1788, 1808, 1812, 1813, 1814. 1820. 1824, 1825, 1827. 1828, 1829, 1835, 1836, 1838. 1842. These various epidemics occurred in London and Birmingham, and in Derbyshire, Durham, Northumberland, Somersetshire, and various other sections. In *Ireland*, 1764, 1767, 1774, 1787, 1788, 1803, 1805, 1810. 1811, 1812, 1813. 1818, 1819, 1820, 1823, 1826, 1828, 1829, 1836, 1837, 1845. These epidemics were mostly in the city of Dublin. In *Scotland*, 1760, 1761, 1773, 1789, 1790, 1791, 1792, 1809, 1810, 1812, 1815, 1821, 1822. These epidemics occurred in Edinburg. Glasgow, Leeds, Aberdeen, and Stirling. In *Sweden*, Stockholm, 1838. In *Denmark*, Copenhagen, 1672, 1792. In *Prussia*, 1652. 1723, 1811, 1819, 1823, 1826, 1827. These epidemics occurred at Leipsic, Frankfort, Heidelberg, Hanover, and Berlin. In *Austria*, 1770. 1776, 1818, 1823, 1836, 1837, 1838, 1839, 1840, 1841. 1842, 1843. These epidemics mostly occurred at Vienna. In *Bavaria*, 1815, 1818. These epidemics were confined mostly to Munich, Wurtzburg, and Bamberg. Other portions of "the continent" have suffered, but I think this will suffice to show that the temperate and northern latitudes of Europe have had their share of epidemics; and for further information the reader is referred to the sources from whence these dates were principally compiled (*loc cit.*) Epidemics of erysipelas might be added, as they have occurred, off and on, for "lo, these many ages." These are of no use to us, however, so long as they refer to the disease alone; it is only when we find references of its connection with puerperal fever that the matter becomes interesting, and it has been comparatively few years since the same was noticed. Gordon,‡ in his essay on Puerperal Fever (London, 1795), gives Peauteau credit for having emitted this idea, forty years previously (1755); also to Clark, of London, in 1788. Trousseau gives Graves, of Dublin, credit for the same. In these differing statements we have no particular interest. In 1849, Masson studied this subject especially. Unfortunately, I have been unable to obtain his book; a table of his, however, which I find copied into the "*Nouveau Dictionnaire de Medecine*," gives some idea of the two diseases as they prevailed together at various years in Paris hospitals.

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*A Treatise on Puerperal Fever, Nathaniel Hulme, M. D., London, 1772; Churchill, Collection of Essays, Sydenham Society, London, 1849.

† Epidemics, Book I, page 373. London, 1849.

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* Loc cit., page 31.

† Obstetrics: The Science and the Art. Philadelphia, 1863, page 608, *et seq.*

‡ Gordon: Meigs' Collection of Essays. Philadelphia, 1842.

ERYSIPELAS.	PUERPERAL FEVER.
November, 1829, to January, 1830	January to May, 1830.
September and December, 1830.	December, 1830, to March, 1831.
August, September, October, 1831	July to August, 1831.
December, 1832, to January, 1833	January to April, 1833.
August, September, October, November, and December, 1833.	July, August, October, November, and December, 1833.
June, 1833.	February to May, 1833.
May, 1837.	November, 1836, to May, 1837.
October, November, and December, 1838.	October, 1838, to February, 1839.
	July, 1840, to April, 1841.
August, September, October, 1840	July, 1842, to March, 1843.
September to October, 1842.	Six first months of 1844.
Six first months of 1844.	September, 1844, to September, 1845.
Six first months of 1845.	
Three first months of 1846.	December, 1845, to May, 1846.

The coincidence of time in the prevalence of these two diseases, will be here noticed. Other "continental" statistics might be quoted, if it were necessary. Let us now turn to the epidemics of our own country. Epidemic erysipelas, according to our own great Drake,* was first noticed in 1826: "An erysipelatous invasion commenced in the northern part of New Hampshire, north latitude 45°, in the year 1841, and made its way down the valley of the Connecticut river, and that it prevailed in various places east of the mountains, from that in which it originated, to the southern part of Virginia, which it reached in the winter of 1844–'45." From Dr. Drake's table of epidemics, we notice, then, that the disease had appeared in epidemic form, up to 1849, in the following localities, at the subjoined dates: Burlington, Vermont, 1826; Ogdensburg, New York, 1822; Middleburg, Vermont, 1841–42;

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*Daniel Drake, M. D. "A Systematic Treatise—Historical, Etiological, and Practical—on the Principal Diseases of the Interior Valley of North America. Philadelphia, 1854. Book II, section 2, page 622, *et seq.*

Crown Point, New York, 1841–2; St. Albans and St. Johnsburg, Vermont, 1842; Ripley county, Indiana, 1842; St. Charles, New Madrid, and Boonville, Missouri, 1842–3; Erie county, New York, 1843; Milwaukee, Wisconsin, 1843–4; Western New York, 1843–4; Michigan City, Indiana, 1843–4; Bloomington, Illinois, 1843–4; Louisville Hospital, Kentucky, 1843–4; Memphis, Tennessee, 1843–4; Big Black Valley, Jackson, Vicksburg, and Warrenton, Mississippi, 1843–4; Genesee, Wyoming, and Alleghany counties, New York, 1843–4; Grand Gulf and Port Gibson, Mississippi, 1844; Whitesburg, Alabama, 1844; Columbia, Tennessee, 1844; Lima, Livingston county, New York, 1844; Courtland, Alabama, 1845; Ontario county, New York, 1845; Uniontown and Laurel Mount, Pennsylvania, 1845–6; Livingston county, Michigan, 1847; Vicksburg, Mississippi, 1848–9; New Orleans (Charity Hospital), Louisiana, 1848–9. In the State of Ohio, at St. Clairsville, 1833; Preble county, 1836; Miami Valley, 1842–3; Meigs county, 1845–6; Brown county, 1848–9.

Dr. Drake says: "In reference to climate as modifying the violence of the disease, it had no influence; for, as we shall hereafter see, the disease was equally violent in the latitudes of 45°, 39°, and 32°; that is, on the banks of Lake Champlain, the Ohio, and the Lower Mississippi." Other writers, besides Dr. Drake, have given partial histories of the epidemic. In a well-written monograph,* Dr. John Dawson, of Jamestown, Ohio, gives "an account of Epidemic Erysipelas," as it prevailed in some parts of Ohio.

This was the epidemic of 1842–3, and the doctor gives a full account of the disease, as it prevailed in Greene county, at that time; also referring to the epidemic in the "Pennsylvania Hospital" (Philadelphia), in 1830. Dr. Dawson says: "During the winter and spring of 1844, the disease assumed the form of an epidemic in the Miami Valley. At first it was most severely felt in the vicinity of the larger streams of water. On each side of the Miamis, and along some of their tributaries, it made its first appearance, showing, as it were, a preference for malarious districts." Dr. Dawson's most valuable observations, at that time, however, were as to the connection existing between the epidemic erysipelas and the puerperal fever, which was then very prevalent in Warren and Montgomery counties (Dayton and Centreville). The doctor gives quite a number of cases to the point, and is fairly entitled to the credit of having been the closest observer and student of the connection of the two diseases, in that celebrated epidemic. Dawson's conclusions are then entitled to due weight. They are as follows:

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*Western Journal of Medicine and Surgery, Louisville, 1845.

"1. That the disease prevailed at the same time that erysipelas was prevailing, and subsided on the disappearance of that malady.

"2. That the premonitory symptoms were like those of erysipelas, consisting of a chill, followed by more or less fever and sore throat.

"3. That in several instances, erysipelas made its appearance on the skin during the progress of the malady, as was the case with several families witnessed by Dr. Van Tuyl, and others.

"4. Instances occurred in which erysipelas was contracted from puerperal females by their nurses.

"5. That the children delivered, in almost every instance, were taken shortly after birth with high fever, erysipelas of the scalp and face, and died."

Dr. Dawson finishes by saying: "Facts of this character must be regarded as going to settle, in a tolerably decided manner, the position that the fatal disease which occurred to the puerperal females, to whom I have alluded, is identical with the epidemic erysipelas, which prevailed at the time in the neighborhood."

Among various army reports, we also find the following: "Dr. Augustus Viele, Watervliet Arsenal, reports" (June, 1841), "many cases of erysipelas have occurred in the vicinity of this post during the past quarter; also many cases of puerperal fever, nearly all of which proved fatal." In March, 1842, Assistant Surgeon L. C. McPhail, at Plattsburg Barracks, reports the prevalence of an epidemic erysipelas of a very fatal character, in the northwest part of Vermont, along the New York border and in the counties of the latter state bordering on Lake Champlain." The same officer, in another report (1843), says: "The epidemic erysipelas, noticed in my report, March, 1842, has continued in these parts to the present, and deaths from it are of almost daily occurrence," etc., "and parturient women have fallen, in unusual numbers, victims to puerperal fever."* Probably other persons noticed the connection between the two diseases at that time. My only idea is to put on record the fact, that they were both noticed prevailing as epidemics at the same period. Epidemics of puerperal fever occurring in the United States, and noted by Meigs and Churchill, are as follows: Northumberland, Pennsylvania, 1814, and in the State of Pennsylvania, 1817, 1818, 1833, 1842. Since 1850 many local epidemics in the different sections of the "States," have undoubtedly occurred, but it is not the writer's intention to give a history of American epidemics. Thinking the outline sketch we have given, will be sufficient for all practical purposes, let us now turn to the question of the contagion of both diseases. What is contagion? I think one of the handsomest and clearest definitions of the word *contagion* is that given by Gallard;* it is an embodied epitome of all ancient definitions. Says Gallard: "Contagion is the act by which a determined disease communicates itself from an individual, who is affected by it, to a healthy individual, by means of a contact either immediate or mediate." Having heard the definition, let us now turn to the question of contagion, confining ourselves to the views enunciated since the beginning of the present century, by various authors. Says Gordon:† "The analogy of the puerperal fever with erysipelas will explain why it always seizes women after and not before delivery; for, at the time erysipelas was epidemic, almost every person admitted into the hospital of this place with a wound, was, soon after his admission, seized with erysipelas in the vicinity of the wound. The same consequences followed the operations of surgery; and the cause is obvious: for the *infectious matter* which produces erysipelas was, at that time, readily absorbed by the lymphatics, which were then open to receive it.

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* Report on the Sickness and Mortality among the Troops in the Northern Division. R. H. Coolidge, U. S. A.

Just so with respect to puerperal fever: women escape it until after delivery; for until that time there is no inlet open to receive the *infectious matter which produces the disease.* But after delivery the matter is readily and copiously admitted by the numerous patulous orifices, which are open to imbibe it, by the separation of the placenta from the uterus." The following from Hulme,‡ who wrote a treatise some twenty-five years before Gordon, shows the change of opinion in that short space of time. Says Hulme: "Miliary fevers, and others of the like kind, are reckoned very common to lying-in women. Yet I am persuaded, from manifold experience, that *these fevers are more the offspring of a heated room and warm regimen*, than of anything peculiar to the state of child-bed women. I have attended more than fourteen hundred women, after their deliveries, in the City of London Lying-in Hospital, yet I do not remember ever meeting with an instance of miliary fever in that house," etc.; and he adds, "I have never observed in that excellent asylum for pregnancy, any petechiæ, vibices, *exanthemata*, vesiculæ puncticula, *or any other febrile eruptions*, joined with the fever of which we are now treating." From this it will be seen that Hulme was not a believer in contagion. Dr. Leake,* who published an article this same year, 1772, seems in doubt as to whether it is contagious or not, for he says: "Thus, for instance, it will always be found most fatal when most epidemical; that is, during a distemperature of the air, and least of all so, when it happens in *healthy seasons from accidental causes only*." Churchill and Meigs, who have each compiled essays on Puerperal Fever, of the older English authors, give their papers in full, and Churchill (page 38) says: "A very important question, that of contagion, remains. The opinions of those most experienced, vary very much. Drs. Hulme, Hey, Armstrong, Dewees, and Campbell, in their works, deny its contagiousness. Dr. Gordon, Prof. Young, Mr. Ceely, Drs. Ramsbotham, Rigby, Lee, and Copland, etc., affirm it. Dr. Hamilton thinks it so contagious that it may be communicated by a third person. Dr. Copland thinks it decidedly contagious, and has accumulated a great amount of evidence." Says Thomas Denman;† "It having been long suspected, and being now fully proved, that they may be and often have been conveyed by midwives or nurses from one patient to another;" and in the "Principles of Medicine,"‡ we read: "In hospitals it has conspicuously appeared as a contagious disease There has been much dispute whether the contagion is one *sui generis*, or that of typhus, erysipelas, or hospital gangrene; or if the disease depended on some noxious state of the atmosphere, conjoined with the absorption of putrid matter." Dr. Labatt, who published an account of the Dublin epidemic of 1819–20, thought that the typhus fever was the cause of it. C. H. F. Routh, in a communication to the "Medico Chirurgical Transactions,"§ in referring to the Vienna epidemic says, "That the contact of *fomites*, the direct or indirect communication with persons affected with puerperal fever; that some influences, carried either by the patient herself, or by her attendants, from other contagious diseases, such as erysipelas, typhus, and other low fevers, has in many cases given rise to puerperal fever among lying-in patients, is a fact that admits of no doubt." Says Blundell:* "It is much disputed by some, whether this disease is infectious; but, however this point may be decided, or unsettled, the facts affirmative of infection are so strong, that accordingly it becomes our duty to act." Blackman, of Edinburg, was the first who believed the disease was directly communicated by a poison introduced by the physicians or attendant, "*subter ungues*," during the *per vaginam* examinations. Says Sir James Simpson:† "I shall content myself by observing here (what I have taught elsewhere for the last ten years), that there exists, I believe on record, a series of facts amply sufficient to prove this, at least. that patients during labor have been and may be locally innoculated with a *materies morbi* capable of exciting puerperal fever; that this *materies morbi* is liable to be innoculated into the dilated and abraided lining membrane of the maternal passages during delivery, by the fingers of the attendant; that thus in transferring it from one patient to another, the fingers of the attendant act, as it were, like the ivory points used by some of the early vaccinators."

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* Article Contagion, Dict. de Med. et de Chirurgie, Tome IX, p. 210, *et seq.*

† A Treatise on the Epidemic Puerperal Fever of Aberdeen. London, 1795.

‡ A Treatise on Puerperal Fever. Hulme. London, 1772.

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* Practical Observations for Child-bed Fever. London, 1772.

† An Introduction to the Practice of Midwifery. By Thomas Denman. London, 1805, Vol. II, p. 507.

‡ Principles of Medicine. London, 1820, p. 533.

§ Medico-Chirurgical Transactions, Vol. XXXII, p. 27, *et seq.* London, 1849.

Under the name of peritoneal fever. Gooch‡ speaks of infection thus: "Facts, such as these, have long led to the suspicion that the disease might be communicated from one lying-in woman to another, in the clothes of the practitioner or nurse, or the furniture of a tainted chamber." In speaking of child-bed fever and its contagion, Meigs§ remarks (as late as 1862): "I have carefully read the cases, considered the arguments, and witnessed many of the events upon which so confident a belief of the contagion is founded, and I aver that I do not discover in them any force, that ought to convince me of the contagious nature of the disorder; wherefore I utterly reject and deny the doctrine as one injurious to the profession of medicine, pernicious to the people, by filling the minds of interested parties with alarm, and as propagating, from age to

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[*] Blundell. The Principles and Practice of Obstetricy. Washington, 1834, p. 473.

[†] The Obstetric Memoirs and Contributions of James Y. Simpson, M. D. Edited by Priestly and Storer. Philadelphia, 1856, Vol. II, p. 31.

[‡] Gooch. Diseases Peculiar to Women. Philadelphia, 1836, p. 20.

[§] Meigs' System of Obstetrics. Philadelphia, 1863, p. 614, *et seq.*

age, a vile, demoralizing superstition as to the nature and causes of many diseases." This is the very strong language used by one whose first rank as an obstetrician in the "States," entitled his opinions to due respect. In speaking of "Hospital Hygiene," the "medical officer of the Privy Council"* says: "A surgeon going to a puerperal woman from attendance on a case of erysipelas, may convey the specific contagion to the uterine surface of his new patient, and occasion her death by that form of puerperal fever, which, under a special name, is in fact but intro-abdominal erysipelas." Says Woods:† "It is indeed not an uncommon opinion, especially in Europe, that puerperal fever and erysipelas, occurring epidemically, are interchangeable diseases, the one being able to produce the other by personal communication. But neither in public nor private practice, have I ever seen a case of erysipelas in which there appeared to be any proof of a contagious origin; nor do I believe, as it ordinarily occurs, it is in the least contagious." But he adds, as if to still more throw doubt on his position, "Subsequent experience of other physicians tended to confirm this view of the interchangeable character of these affections occurring epidemically." Says the celebrated Bedford:‡ "The testimony is ample, showing a connection between puerperal fever and erysipelas. The two diseases may prevail simultaneously, in the same neighborhood; or, if erysipelas alone prevail, a third party may communicate, from a patient affected with it, puerperal fever to a woman recently delivered." In yet another place (p. 683), Bedford remarks: "I do not deem it necessary to cite particular examples, in which puerperal fever has been conveyed through the principle of contagion. They are so numerous, and so free from all doubt—in a word, they are so conclusive—that I can not conceive how they can be regarded otherwise than completely demonstrative of the point at issue." Says Aitken:§ "Erysipelas and puerperal fever are interchangeable diseases, the one being able to induce the other by personal contact." And again he says, in yet another place (p. 361): "The spread of erysipelas has been so frequently observed, both in the sick room and the wards of hospitals, that no doubt can exist of this disease being communicable by impalpable emanations." Says Trousseau,* the prince of French clinical lecturers, speaking of erysipelas: "Those of you who have followed the surgical *service*, know that while during a certain time—one year, eighteen months, two years—it is rare to see this affection coming on after the most serious operation; at other times, as I in a moment will call to your recollection, the surgeon can not cut the least with the bistoury without exposing his patient to this complication. This is the state of affairs now. At the same time a most serious epidemic of puerperal fever has prevailed for a long time at the '*Maternite*,' where sixty patients have died in the space of ten months." Reynolds,† speaking of puerperal fever, remarks: "Sporadic cases, from time to time occur, without the diffusion of the disease; but even then it is right to observe the utmost caution, as so much doubt is always involved with regard to its contagious nature." Says Littre and Robin, in the last edition of their elaborate dictionary:‡ "It is proved to-day that sporadic, as well as epidemic erysipelas, is contagious." Says Watson,§ who believed idiopathic erysipelas to be contagious: "The causes of erysipelas are various, and often obscure. I have stated that it is communicable, by contagion, from person to person; yet this contagious property is so feebly marked that it is denied by many." Reynolds (*loc cit.*), speaking of erysipelas, remarks: "But by far the most important cause, acting from without, is the *poison*, whatever may be its nature, which exists in one case and can be communicated to another, either by innoculation, simple contact, transmission through the air, or by fomites." Simpson,|| one of the earliest believers in the interchangeable character of the two diseases, in a late work, speaking of contagion, remarks, as late as last year (1872): "The obstetric physicians of Great Britain generally agree, I believe, as to the occasional spread of puerperal fever in this mode, from the affected to the healthy, by the unhappy and indirect medium of the physician, nurse, etc., as well as

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*Sixth Report. London, 1864, p. 59.

† Woods. A Treatise on the Practice of Medicine. Fifth edition. Philadelphia, 1858, p. 446.

‡ Bedford. The Principles and Practice of Obstetrics. New York, 1863, p. 683, *et seq.*

§ The Science and Practice of Medicine. London, 1866, Vol. I, p. 362.

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* Clinique Medicale. Deuxieme edition. Paris, 1865, Vol. I, p. 166.

† A System of Medicine. J. Russell Reynolds. London, 1871, Vol. III, p. 222, *et seq.*

‡ Dictionnaire de Medicine. Paris, 1865, p. 548.

§ Watson. Principles and Practice of Physic. Philadelphia, 1858.

|| Simpson "On Hospitalism." New York, 1872, Vol. II, p. 382.

by contagious miasmata." The views of numerous authors might be quoted at length, regarding the contagion of the two diseases, some *pro*, others *con*, as regards this special point; let the few well-known names quoted, however, suffice. In regard to the particular questions of the interchangeable character of the two diseases, a few additional *notes* might not be inappropriate. It is Virchow, if I be not mistaken, who asks: "Can erysipelas be puerperal fever?" and sees a close connection between the two diseases, so much so, indeed, as to designate puerperal fever as nothing less than an "*Erysipelas malignum internum*." The experiment made by Hardy, in the Paris hospitals, during an epidemic of puerperal fever, are so well known that it would be useless almost to quote it at length; in brief, however, it was as follows: Hardy transferred all his lying-in patients, "with the exception of six too sick to remove," to wards just vacated by patients suffering from diseases of the skin. What was the result? Puerperal fever entirely ceased; not another woman was attacked; while thirty-two of the skin-disease patients, who had been transferred to the wards *formerly occupied* by the puerperal fever patients, were *attacked by erysipelas*, one of them dying. During epidemics in Paris hospitals, well-authenticated cases are on record, where house-doctors and nurses, attending women suffering from puerperal fever, have in turn been attacked by erysipelas. Numerous cases of this kind are to be found recorded in the journals of all countries. These coincidences in the occurrence of two diseases at the same time should not, however, be regarded as making an absolute rule. Measles sometimes attacks a person laboring from scarlatina, and the latter again may be complicated by diphtheria. They all three prevail epidemically at the same time, and are equally contagious. Each disease may exist by itself and display its usual type, or it may be complicated by the addition of one of the others. It has been proven beyond a doubt, that erysipelas and puerperal fever prevail epidemically at the same time; and when we read in journals that cases of puerperal fever have died, whose skins were erysipelatous at points, we have no right to make the deduction that the diseases are one and the same, any more than we have the right to say that measles and scarlatina, when co-existent, is nothing but scarlatina. But it was not my intention to digress: "*revenons à nos moutons*." Says Collins,* speaking of puerperal fever, "This disease has also become epidemic in our hospitals (Dublin). Upon several occasions, when typhus fever prevailed in the city, and at other periods when erysipelas was frequently met with." Trousseau noticed the prevalence of both diseases, at the same time, and says: "In another lecture, I remarked to you that erysipelas patients in the surgical *service*, were never so numerous as in the times of an epidemic of puerperal fever." Trousseau* also noticed the prevalence of purulent ophthalmia, erysipelas, and peritonitis among *nouveau nés*.

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* Robert Collins. Obstetrics. American edition. Boston, 1841, p. 228.

The coincidence of purulent ophthalmia among children, in times of puerperal fever epidemics, is also noticed by Lorain and others. Says Lorain,† in a memoir read before a society: "For several weeks the infants born in our *service* furnished a numerous contingent to purulent ophthalmias. Now, it is a fact upon which there seems to us to exist a doubt among physicians who have studied puerperal disease, with all its ramifications, that the opthalmia of new-born children often accompanies the puerperal fever of the mothers. This is not the place to insist upon the community of morbid predisposition which exists between the new-born child and women confined; this community is not desirable." (*Seance du Novembre*, 1867.) Let us, then, conclude our remarks in regard to the connection of the two diseases, by a quotation from Robin and Littre (loc cit., p. 1247): "In hospitals where puerperal fever exercised its ravages, have been observed, purulent peritonitis among infants, fevers of a bad nature among students, erysipelas and purulences among those operated on in the neighboring wards." But enough. The groundwork of our subject having been thus marked out, and a rough insight of the views of various authors regarding the diseases under discussion having been obtained, we are now able to enter into the study of fresh statistics with a keener zest, knowing that while no very important point is to be gained, that still matters of general professional interest must inevitably unearthed even by a most careless observer. With the object of gratifying my own curiosity, then, I shall now proceed to dissect

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* "Il y' a douze ou quinze ans, un fait m'avait frappé, alors que regnaient a la maternite des epidemies de la maladie dite fievre puerperale. Je voyais arriver dans mes salles de nourrices, a l'hopital Necker, un grand nombre d'enfants atteint d'opthalmies purulentes, de peritonites et d'erysipeles; J'avais donné a toutes ces affections le meme epithete de puerperale." Trousseau (loc cit.), p. 175, *et seq.*

† Bulletin et memoires de la Societe Medicales des Hopitauxs de Paris, 1867. Tome IV, p. 307.

Table showing the Mortality from Erysipelas and Puerperal Fever in the different States and Territories

FOR THE YEAR 1870.

Arranged by T. C. Minor, M.D., Cincinnati, O.

FIRST SECTION. NEW ENGLAND STATES.	Population in 1870.	Deaths from Erysipelas in 1870.		Total number males and females.	Deaths from Puerperal fever.	Total Mortality from both diseases.	SPRING.						SUMMER.						AUTUMN.						WINTER.						Erysipelas, total Deaths in Spring.	Summer.	Autumn.	Winter.	Season of greatest Mortality.	Month of greatest Mortality.	Total Deaths in Spring from Puerp. Fever.	Summer.	Autumn.	Winter.	Season of greatest Mortality.	Month of greatest Mortality.	REMARKS.
							March.		April.		May.		June.		July.		August.		Sept.		October.		Nov.		Dec.		Jan.		Feb.														
		M.	F.				Erysip.	Puerp. F.	Erysip.	Puerp. F.	Erysip.	Puerp. F.	Erysip.	Puerp. F.	Erysip.	Puerp. F.	Erysip.	Puerp. F.	Erysip.	Puerp. F.	Erysip.	Puerp. F.	Erysip.	Puerp. F.	Erys p.	Puerp. F.	Erysip.	Puerp. F.	Erysip.	Puerp. F.													
MAINE	626,915	30	17	47	8	55	2	1	8	3	3	0	5	0	3	1	4	0	3	1	3	0	3	1	7	0	2	1	4	0	13	12	9	13	Spring and Winter.	April.	4	1	2	1	Spring.	April.	
NEW HAMPSHIRE	318,300	14	14	28	6	34	6	1	2	1	2	0	2	0	3	0	2	0	1	1	1	0	1	1	1	1	3	1	4	0	10	7	3	8	Spring.	March.	2	0	2	2	* * * *	* * * *	
VERMONT	330,551	10	12	22	5	27	2	1	4	0	3	0	0	0	0	2	1	0	5	0	1	1	1	1	2	0	1	0	2	0	9	1	7	5	Spring.	September.	1	2	2	0	Summer & Autumn.	July.	
MASSACHUSETTS	1,457,351	84	66	150	51	201	12	4	14	3	11	7	17	2	8	4	14	3	14	6	8	2	9	5	11	5	18	7	14	3	37	39	31	43	Winter.	January.	14	9	13	15	Winter.	May& Jany.	
RHODE ISLAND	217,353	9	12	21	1	22	2	0	2	0	1	0	0	0	2	1	3	0	4	0	1	0	0	0	3	0	2	0	1	0	5	5	5	6	Winter.	September.	0	1	0	0	* * * *	* * * *	
CONNECTICUT	537,454	20	18	38	15	53	7	0	4	2	7	5	2	0	2	1	3	1	3	0	1	2	4	0	2	3	1	0	2	1	18	7	8	5	Spring.	Mar. & May	7	2	2	4	Spring.	May.	
TOTAL		167	139	306	86	392	31	7	34	9	27	12	26	2	18	9	27	4	30	8	15	5	18	8	26	9	27	9	27	4	92	71	63	80	Spring.	April.	28	15	21	22	Spring.	May.	
SECOND SECTION. MIDDLE STATES.																																											
NEW YORK	4,382,759	253	202	455	235	690	61	38	56	29	48	22	45	18	26	16	23	17	13	11	26	18	27	13	36	20	40	13	54	20	165	94	66	130	Spring.	March.	89	51	42	53	Spring.	March.	
NEW JERSEY	906,096	31	31	62	9	71	10	0	4	1	8	1	3	1	4	0	9	1	3	0	2	1	3	0	6	0	6	1	4	3	22	16	8	16	Spring.	March.	2	2	1	4	Winter.	February.	
PENNSYLVANIA	3,521,951	154	128	282	108	390	23	14	34	13	26	17	25	7	16	2	17	3	16	6	27	4	17	4	24	13	32	15	25	10	83	58	60	81	Spring.	April.	44	12	14	38	Spring.	May.	
DELAWARE	125,015	6	6	12	1	13	0	1	1	0	0	0	0	0	0	0	1	0	0	0	3	0	3	0	3	0	0	0	1	0	1	1	6	4	Autumn.	Oct. & Nov.	1	0	0	0	Spring.	March.	
TOTAL		444	367	811	353	1164	94	53	95	43	82	40	73	26	46	18	50	21	32	17	58	23	50	17	69	33	78	29	84	33	271	169	140	231	Spring.	April.	136	65	57	95	Spring.	March.	
THIRD SECTION. SOUTHERN STATES.																																											
MARYLAND	780,894	29	31	63	19	82	6	2	10	5	6	1	3	0	5	0	3	2	1	1	5	1	6	2	5	0	5	2	8	3	22	11	12	18	Spring.	February.	8	2	4	5	Spring.	April.	
VIRGINIA	1,225,163	34	39	73	69	142	7	10	8	6	9	12	4	6	3	4	4	2	5	7	7	3	8	1	7	3	6	7	5	8	24	11	20	18	Spring.	May.	28	12	11	18	Spring.	May.	
NORTH CAROLINA	1,071,361	24	28	52	52	104	4	1	4	2	6	5	5	1	3	5	8	5	3	2	3	8	7	5	6	4	1	5	2	9	14	16	13	9	Summer.	August.	8	11	15	18	Winter.	February.	
SOUTH CAROLINA	765,606	11	10	21	15	36	3	3	0	3	4	2	1	0	1	0	1	0	2	0	1	2	0	0	2	0	3	3	3	2	7	3	3	8	Winter.	May.	8	0	2	5	Spring.	* * * *	
GEORGIA	1,184,109	12	26	38	76	114	5	12	2	13	5	9	5	2	1	3	3	5	3	3	5	4	1	7	4	2	1	8	3	8	12	9	9	8	Spring.	* * * *	34	10	14	18	Spring.	April.	
FLORIDA	187,748	5	4	9	5	14	0	1	0	0	1	0	0	0	2	1	0	0	2	0	0	0	1	1	1	1	1	0	1	1	1	2	3	3	* * * *	* * * *	1	1	1	2	Winter.	* * * *	
ALABAMA	996,992	30	21	51	53	104	7	6	4	6	6	7	4	2	3	6	5	4	3	6	5	4	4	3	3	2	3	3	4	4	17	12	12	10	Spring.	March.	19	12	13	9	Spring.	May.	
MISSISSIPPI	827,922	20	16	36	45	81	2	5	5	8	7	9	0	1	2	2	4	6	2	2	1	1	4	4	1	0	5	6	3	1	14	6	7	9	Spring.	May.	22	9	7	7	Spring.	May.	
LOUISIANA	726,915	21	31	52	24	76	2	4	5	3	8	2	2	1	1	0	2	0	6	2	4	2	5	2	8	3	4	3	5	2	15	5	15	17	Winter.	* * * *	9	1	6	8	Spring.	March.	
TEXAS	818.579	47	44	91	86	177	9	5	6	11	6	9	9	4	6	2	8	4	5	9	9	4	7	8	9	5	11	9	6	16	21	23	21	26	Winter.	January.	25	10	21	30	Winter.	February.	
DISTRICT COLUMBIA	131.700	6	7	13	6	19	3	0	1	0	0	0	1	0	1	0	1	1	0	1	2	0	1	0	1	2	1	1	1	1	4	3	3	3	Spring.	March.	0	1	1	4	Winter.	December.	
TOTAL		239	260	499	450	949	48	49	45	57	58	56	34	17	28	23	39	29	32	33	42	29	44	33	47	22	41	47	41	55	151	101	118	129	Spring.	May.	162	69	95	124	Spring.	April.	

and analyze the following table of figures, which, as has been before remarked, were compiled from the last census. Commencing, then, with the New England States, as follows:

Maine.—Extending itself from the forty-third to the forty-seventh parallel of latitude, the State of Maine stretches eastward into the Atlantic to the neighborhood of longitude 67 west, and westward to longitude 71 west. Glancing over a hypsometric map of the state, we find that its elevation above the level of the sea, from east to west, gradually increases: along the coast being from the sea level to 400 feet above; then a narrow central plateau varying from 400 to 800 feet, and then a far western range of land having an elevation of from 800 to 2,000 feet. Portland, in latitude 43.40°, longitude 70.14°, has a mean annual temperature, according to Blodget,* of 42.9°, as was ascertained from observations, extending over a series of years, which were taken at the Portland Marine Observatory. In mean monthly figures the temperature reads as follows: January, 19.6°; February, 21.2°; March, 30°; April, 40.2°; May, 50.2°; June, 59.5°; July, 66.1°; August, 64.6°; September, 57.5°; October, 46.1°; November, 35.4°; December, 24.1°. This would give then a mean spring temperature of 40.1°; summer, 63.4°; autumn, 46.3°; winter, 21.6°.

The mean *monthly* fall of rain and melted snow might be given, but I shall content myself by only using the annual quarterly reports from certain points that I have selected; thus, Fort Kent, in the northern part of the state; Fort Sullivan, a more central point, and Fort Preble, in the southern part of the state, read as follows:

	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Fort Kent,	5.46 in.	11.65 in.	9.64 in.	9.71 in.	36.46 in.
Fort Sullivan,	8.88 in.	10.05 in.	9.85 in.	10.61 in.	39.39 in.
Fort Preble,	12.11 in.	10.28 in.	11.93 in.	10.93 in.	45.25 in.

It will be seen at a glance that the well-known rule of a diminished rain-fall, the further the distance from the equator, is fully exemplified here. The northern and interior part of Maine is covered with a dense forest of hard woods, consisting of different varieties of maples, beech, birch, and ash, on the higher lands, and spruce, fir, cypress, and larch, on the lower lands; white and yellow pine forests abound in isolated groups. At Fort Kent, latitude 47.15° north, longitude 68.38° west, the most northern interior point of observation in the state, the mean annual temperature is about 35.90°. Winter commences in October, and the St. Johns river is usually frozen by the 30th of November. During the winter the thermometer often falls below zero, providing the nights are clear; the mercury often freezing in the bulb during the month of January. The snow generally disappears from the open lands about April, but in the woods is often found as late as the first of June. The first swallows are seen in May. The population is made up mostly of the French stock, the descendants of the settlers of 1783, the Acadians, who were exiled from Nova Scotia by the English, a people whom Longfellow has so charmingly idealized in his poem of Evangaline. The country about Fort Kent is one of the healthiest in the United States, according to Dr. Weatherspoon.* At Fort Fairfield, one degree of latitude further south (*i. e.* 46.46°), "the transition from winter to summer is very rapid; the trees put forth their leaves and the wild flowers bloom, while masses of snow remain in the forest; field strawberries ripen the first of July." (Dr. R. H. Coolidge, U. S. A.) At Hancock Barracks, situated a short distance further south, the average mean annual temperature is about 40.15°. The mean annual temperature of Portland, in the extreme southern portion of the state, has been previously given; the northern isothermal line of 44° crosses Maine in the neighborhood of that city. From the statements made, it will be seen that the State of Maine has a very late spring and an early winter.

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* Climatology of the United States. Lorin Blodget. Philadelphia, 1857.

Study of the Table.—It will be seen that 47 persons died of erysipelas, in Maine, in 1870, out of a total population of 626,915, and that during the same time there were only eight deaths from puerperal fever. The deaths from erysipelas among men were over 40 per cent. greater than among women; that is, 30 males to 17 females. The decedents from erysipelas were all white, and native born, with but one exception. The decedents from puerperal fever were all whites, 75 per cent. being native, and 25 per cent. foreign born. The seasons of greatest mortality from erysipelas were those of spring and winter; the season of greatest mortality from puerperal fever was spring. The month of greatest mortality from erysipelas was April, when there were 8 deaths; the month of greatest mortality from puerperal fever *was April*, when there were 3 deaths.

[TO BE CONTINUED.]

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* Report in "Medical Statistics U. S. Army." Washington, 1856, p. 22, *et seq.*

Art. II.—The Healing Art, as practiced by the Indians of the Plains.

By FORDYCE GRINNELL, Physician to the Wichita Agency, Indian Territory.

Many of the customs of ages long gone by, are still practiced by these Indians, as well as many other of the aboriginal tribes of this continent.

In the earlier ages, the offices of priest and physician were united in one person; it being deemed proper for those who ministered in sacred things to also practice the "healing art," as having greater intimacy with Divinity. We find among the Osages the name for doctor at this day is Wakantike, or "the one who talks with God."

They suppose their "medicine-man" holds direct and frequent counsel with the "Great Spirit," and thus is enabled to see further and deeper into the concerns of life than other men, and especially in reference to disease and its cure. Hence, their doctors often, when alone, or when engaged in the treatment of any special case, seem to be communing with the Invisible.

The practice of medicine, as seen in its original character among these Indians, consists in two parts: the first comprises actual therapeutical agencies, more or less potent; the second consists in a variety of enchantments, conjurations, and meaningless performances, on which great reliance is placed by many of these deluded children of the forest. In this respect they resemble many among their white brethren, who claim a more advanced civilization, but who will leave the scientific and lettered doctor, and go great distances to have some presumptuous individual styling himself a faith-doctor lay hands upon them and motion away disease.

Among the therapeutical agencies used by these Wakantikes are many articles of our materia medica which they find growing in their own countries; as the xanthoxylum fraxineum, eupatorium perfoliatum, anthemis cotula, lanicula Marylandica, hedeoma pulegioides, nepeta cataria, asarum canadense, panox quinquefolia, botrophis racemosa, mentha piperita, etc. But their ideas are very vague in reference to the therapeutical value of these various articles, and the proper times and cases in which to exhibit them.

In pneumonia they construct an almost air-tight tent or booth, and with the use of diffusive stimulants, hot water, and steam generated by heating stones and placing them in water, they give the patient a thorough sweating.

But what little good might result from such a course is totally destroyed by taking the patient from this heated apartment and allowing him to lie on the ground unprotected. The result generally is a new invasion of the disease, and the "last state of that man is worse than the first."

Wet cupping is resorted to quite frequently. The surface is scarified by a sharp stone or knife, and a buffalo horn is used as the cupping-glass.

Cauterizing with the red-hot iron is not infrequently employed, and that often for such remote causes as to render the use of it extremely absurd.

But more than all, their divinations, conjurations, and repetitions of certain obscure phrases are resorted to, and believed in, as being efficacious for the sick.

Everything with them is bad medicine or good medicine. A day's chase procuring plenty of venison or buffalo, is good mediicine. If any adverse circumstance occur, it is bad medicine. If a chief or "big man" among them dies, it is bad medicine, and the lodge is abandoned.

Hence, the frequent names of localities as bad medicine or good medicine lodge. The great Indian remedies so often advertised, and represented as being some wonderful panacea, curing all the ills to which flesh is heir, and made known by some Indian skilled in the use of herbs, is one of the veritable "sells" of the patent swindler.

The Indian cure-alls are very scarce among the aborigines, and after a continued experience with "white man's medicine," they usually abandon all their old notions relative to the matter, and conclude that they know nothing about the "healing art."

Some of the Indian medicine men perform feats of jugglery truly wonderful, when we consider that they have learned nothing in the art from other nations, for many ages at least. Such feats are performed as swallowing a handkerchief or knife, keeping a coal of fire burning for a great length of time in the mouth, and many others, which are entirely inexplicable to the common people among them, who imagine something superhuman connected therewith.

No doubt the moral effect thus produced has much to do, not only with the little good they may seem to accomplish, but with the perpetuation of their system of medicine.

Art. III.—Ophthalmic Miscellany.

By A. D. WILLIAMS, M. D., St. Louis, Mo.

Tattooing of opacities of the cornea is an operation of quite recent origin. Like all other novelties in surgery, it was taken up by specialists everywhere, and "tattooed eyes" were reported on every hand. Now, when only a few months have passed, the operation is rarely mentioned in the journals. The "rage" for tattooing, therefore, seems to have been short-lived. As one extreme follows another, the cessation of reports may be a reaction—the opposite extreme—from the primary rage. Be this as it may, the operation, in my judgment, has merit in it, and should not be discarded. I have tattooed three corneal opacities, the results in all being very satisfactory to the patients. A young man, whose business makes it necessary for him to speak occasionally in public, had a brilliantly white leucoma, which covered over two-thirds of the central part of the cornea, a very small ring of its margin being clear. People would gaze so much at his "white eye" that it annoyed him excessively both in his public speaking and elsewhere. The reflection of gaslight from the opacity was so perfect that his friends would often recognize him on the street at night, when he was half a square off, by the "shine of his eye." This, together with the remarks he often heard made about his defective eye, made him very anxious to get rid of the deformity. It was a matter of pride, as well as something of a necessity with him.

Some months since he come to me, intending to have the eye amputated or enucleated, preparatory to wearing an artificial eye. The ball was perfectly healthy internally and of natural size, and caused him no trouble whatever, other than the above annoyance. I advised against amputation or enucleation, and suggested the tattooing operation. He readily and gladly consented. I improvised an instrument by sticking three medium-seized common sewing-needles parallel through a cork, so as to bring their points on a level. With this instrument I picked the India ink sufficiently, as I supposed, into the surface of the leucoma. The irritation disappeared very soon without treatment. The next day, being not only well satisfied but highly pleased with the improved appearance of his "pearly eye," he left the city, and was gone a month and a half. When he returned, some of the ink had been washed away by the tears, and some had been absorbed. I repeated the operation, and persevered till I got the opacity sufficiently colored. Since then he has been well satisfied with the appearance of his *white eye.*

A young lady from Omaha had a large leucoma, involving about half of the lower inner part of the cornea. She was anxious to have her sight restored, and the deformity removed as far as possible. I made her an iridectomy outward, which improved the appearance of the eye, but did not benefit her vision much on account of the conical form of the cornea, resulting from the old ulceration. I picked the ink into the leucomatous portion of the cornea, as above, but had to repeat the operation twice in this case, because the patient would not hold still, on account of the pain, long enough to get a sufficient amount of the ink into the surface of the opacity. The final result was good, and the patient was highly pleased at the great improvement in the appearance of her unsightly eye.

A few days ago a very large, ragged, dirty, young negro man (who is a "roustabout on the river) came in for advice and relief, if possible. He had a small, but very white, opacity on the lower margin of one cornea. It interfered somewhat with the vision, but that was a small matter; he wanted the deformity removed in some way, and was not particular how, but must have something done, as "the ladies" troubled him so much about his "pearly eye" he could not bear it any longer.

He sat down and held perfectly still while I picked the surface of the leucoma full of India ink. As soon as he got a glance into the glass, he expressed himself as thoroughly satisfied, and even delighted, and left the room, congratulating himself that "the ladies" would not "bodder" *him* any more.

The operation has to be repeated usually once, sometimes twice, and even oftener, before a sufficient amount of the ink gets into the whitened tissue to obscure or hide the deformity.

It is not often necessary to use the speculum, as the lids can be held open with the fingers.

The instrument used in the above cases answers the purpose very well, and has the merit of being *very cheap*.

A CORRECT DIAGNOSIS *often makes the radical cure of apparently obscure and difficult diseases very easy.*

In order to illustrate this statement, I give a few items from my own experience:

1. A man was chiseling cold iron; a piece flew off and struck upon the sclerotic just behind the outer margin of the cornea of one eye, with sufficient force, as he thought, to penetrate the eyeball. He called at once upon an oculist, who at once declared, without any examination whatever, that the *iron had entered the vitreous chamber*, *the eye was hopelessly lost*, *and proposed to remove it*. The man was not satisfied with the opinion and the "cheerful" prospect, and sought further advice. Upon inspection I found that there was a small opening in the conjunctiva just behind the cornea, which looked as though the foreign body had entered the eye, but the bare touch of a probe proved that it was lying just under the conjunctiva, and had not penetrated the sclerotic at all. I picked the piece of iron away with the forceps without the least trouble, and the man left the office with a much brighter face than when he came in. Every one will see that a very slight examination would have not only saved, but added to, the reputation of the physician first consulted.

2. A gentleman was treated in Louisville by a prominent surgeon for *supra-orbital* neuralgia (only on one side) for six weeks, at which time he had occasion to come to this city, and was treated here by a prominent physician for some time for the same trouble. In the meantime the eye became quite red, on account of which his physician was kind enough to refer him to me.

Upon examination I found the minutest crystal of sand imbedded in the surface of the cornea. I picked this out, and the next morning the redness was gone, together with the supra-orbital pain, and the man has had no trouble since.

3. An old lady thought she had catarrh in the head, which caused her, as she supposed, the intense pain in and around her eyes and through her head, from which she had suffered for some time. Occasionally the pain was so intense that she would keep her head wrapped up in blankets. She was treated by her family physician and other prominent medical men in the city for

catarrh and supra-orbital and general neuralgia of the whole scalp.

The fact was discovered that she had several decayed and sensitive teeth, which had been more or less troublesome for some time. I urged the necessity of having the diseased teeth all removed at once, as they were in all probability the exciting cause of her severe suffering. She had a dentist extract them, and she has not suffered any since.

I could give other items of a similar character, but these are sufficient to establish the fact that a correct diagnosis often makes the radical cure of apparently obscure and difficult diseases *very easy.* If their narration here will stimulate general physicians (and specialists too) to a more thorough examination in such cases, this communication will not be in vain. Close examination lies at the foundation of correct diagnosis, the importance of which every one very well understands.

A common text with the great Nelaton runs about thus: "When you have a correct diagnosis, you know what you are doing." From this text many medical sermons might be preached, but I propose to let the text do the preaching.

As the treatment necessarily depends upon the diagnosis and that upon the examination, the great importance of a rigid critical examination, particularly in doubtful cases, at once appears.

Art. IV.—Surgical Reports.

By W. S. MENDENHALL, M. D., of Chestnut, Illinois.

The following cases are respectfully submitted:

1. CELOTOMY.—Was called, September, 1871, to visit Mrs. R.; German; æt. 44; mother of six children. Found the patient suffering excruciating pain in hypogastric and right inguinal regions. She expressed herself as having taken cold, and I left an opiate and other medicines, usual in such cases. In five hours I was again summoned to her bedside, when I found her ejecting stercoraceous matter from the stomach. Upon making special inquiry, I learned the lady had husked corn the previous day, during which time the distress came on, and she walked three miles to a neighbor's. Said she had often suffered in this way. Upon examina-

tion, I discovered a tumor in the right anterior femoral region. Without delay, I attempted its reduction, but "taxis" failed. I sent for Dr. Wimple, of Mt. Pulaski, and when he arrived, the patient was chloroformed. I made a longitudinal incision over seat of tumor, but with all the effort that Dr. Wimple or myself could safely use, our attempts at reduction were of no avail. I then severed the *fascia propria*, and nicked Gimbernat's ligament; and still the intestine could not be returned until I had entirely disjoined the ligament, and then it was only reduced with great difficulty, together with all its membranes, which were returned, with the *peculiar gurgling* sound. Two hours had elapsed before we succeeded. The wound was stitched and cold-water dressings applied. In one week the lady was up and about. The intestine was nearly of a jet-black hue, and probably, under the circumstances, it might have been advisable to have punctured the intestine. On conversing with the lady afterward, she remarked she had often had a tumor there, but could always put it back before, and thought it of little consequence. From that day to the present, now two and a half years since, there has been no trace of the hernia, and I am confident the operation has produced a radical cure.

2. FOREIGN BODY PENETRATING THE EYE—IMPENDING DISSOLUTION FROM CHLOROFORM.—Mr. L., æt. 27, robust, healthy, called at my office, September, 1871, and stated that he had been cutting corn, and had got something in his eye, complaining of pain and photopsia. On examination, I discovered a piece of corn-blade had penetrated the cornea, passing through the pupil and on down beyond the equator of the globe. I made several efforts to remove the particle, but the ball being so very tender to the touch, and so much oscillation, I was unable to do so. There was no available assistance nearer than seven miles, and as the patient's sufferings were almost intolerable, I determined to give chloroform and operate alone. The man came under the influence of the anæsthetic with some muscular rigidity. Just as I applied the speculum the breathing appeared to cease. I however operated as rapidly as possible, which did not last over a quarter of a minute. As there was no pulse nor breathing perceptible, I turned to resuscitate my patient. I immediately attempted to induce artificial respiration, drew the tongue forward, and used cold water freely to the face and chest; but all to no purpose. I continued this for about three minutes; still no symptoms of life appeared. What must I do! I made a hasty retreat to the culinary department,

and extracted a large feather from a wing, which was immediately introduced into the pharynx, and a tickling process of the fauces was commenced. This was continued about a minute, when, to my utter surprise and great relief to my mind, and in an instant, my patient sprang from the lounge and all danger was over. The wounded globe did well, and but little inflammation followed. Cold-water dressings and solution of atropia instilled at the inner canthus for several days constituted the treatment. Whether the respiration and heart's action were re-established by the feather producing reflex action on the phrenic and pneumogastric nerves, I am unable to say. But let this suffice; for I have learned by this case to never give an anæsthetic and operate alone, no matter how trivial and of little consequence an operation may at first appear. The piece of corn-blade was three-fourths of an inch long.

3. Resection.—Miss K., æt. 13, was thrown from a horse in August, 1872, falling on her left elbow and shoulder, producing a compound fracture of the surgical neck of the humerus. The broken bone protruded through the axilla. On my arrival at the house, I found the girl greatly exhausted and in a state of collapse. The circulation was immediately established by giving brandy and morphia, and the fracture was reduced to a simple one. I then trusted to nature mainly to assist in the cure.

On the third day from the accident, however, the girl was suffering so much from pain and symptomatic fever, and so little sign of repair manifested, that I determined in my own mind that amputation or resection was the only remedy to insure the safety of the patient. I sent for Drs. Sargent and Ross, of Lincoln, and with their assistance we resected the distal end or extremity of the surgical neck of the humerus, the patient being under chloroform. After operating, it was a query with us which was the best means or way of bandaging, so as to give due support to the luxated shoulder. Dr. Sargent suggested Mr. Tyrrel's plan, *i. e.*, paste-board splint like an inverted L. This did not seem exactly adapted to this case, and we concluded to resort to the plan laid down in Druitt's Surgery (p. 238), by bandaging the splint to the inner part of the remaining portion of the humerus, and thence to the thorax. The patient was then ordered such tonics and supportive treatment as the case seemed to require. I visited the patient daily for a month afterward; but on the third day after the operation, it became necessary to remove the bandage, as the wound and dressings were giving off a very offensive odor, and the bone having again protruded at the axilla, I could devise no plan of bandaging which would suit the case, as suppuration was now profuse, and some symptoms of pyæmia appeared. I placed the arm at right angles, however, with the body, on a pillow, and kept it in this position throughout the remaining treatment. I used carbolic acid, in fact nearly the whole category of disinfectants, to a great extent, and continued my supportive treatment. Some bits of tendon were thrown off, two to four inches long. Abscesses also formed opposite the wound at about the angles of the sixth and seventh ribs, reducing my patient very much in flesh. With a free use of cod-liver oil, the symptoms now made a change for the better, and the patient henceforward made a rapid, and, indeed, a very satisfactory recovery. We exsected two inches of bone, and now the arm is two and three-fourth inches shorter than the right arm. There is a good degree of mobility; can do almost any kind of house-work, and does not notice but that her left arm is as useful as the right, except when she attempts to raise her arm straight over her head. Last November an axillary abscess made its appearance at or near the point of fracture, and the patient laid some time in bed with the trouble, but it did not affect the part exsected. This case demonstrates the efficiency of the efforts of nature when aided by conservative treatment. The motion is excellent, and the result is but another triumph of conservative surgery.

4. AMPUTATION AND DEATH.—Mrs. K., æt. 38, mother of three children, and in seven months' gestation, was riding after night on a hand-car, with her limbs suspended in front, when the car collided with another hand-car, both running at rapid speed in opposite directions. The result was, Mrs. K.'s leg below the knee was almost severed in twain. The lady was conveyed to a house near by, and I immediately dispatched for. The messenger who came for me did not think the lady was badly hurt, and I repaired to the scene without preparation, and found the limb crushed from the condyles to the malleolus almost into a jelly. The hemorrhage being alarming, I placed a bandage around the femur, with a compress over the femoral artery, and with a stick commenced tortion, when the bleeding ceased. Without delay I sent for my instruments and assistance. In about three hours, Dr. Mendenhall, of Latham, and Drs. Pumpelley and Godfrey, of Mt. Pulaski, arrived. In the meantime, however, I applied several

ligatures, and removed a great many broken fragments of bone. We concluded to amputate at lower third of femur, which I did at 2 o'clock A. M.—a very unfavorable time to operate. The lady lived just three hours after amputating. It may be a question, "Were we justified in operating?" To have deserted the patient in this horrible and mangled condition would have been both barbarous and inhuman, for death was inevitable to have done so. I think we were justifiable in giving all *possible* chance for life, although we had but little hope of recovery.

5. Was called to Mt. Pulaski, seven miles from here, January 13, 1874, to remove a "hair-pin" from the bladder of a servant girl, æt. 18, unmarried. The girl reports that when she retired two or three nights previous, a hair-pin slipped from her head and fell to the meatus urinarius, and "went up," as she said, although she made a great effort to overtake it; a story too much attenuated to deserve much credit. The pin had been in the bladder three days before I saw the patient, and had not produced much inflammation, although she had great difficulty and dolor at micturition My friend, Dr. Cass, had the patient under his charge, and sent for Drs. Pumpelley and Godfrey to be present. Dr. Cass gave the chloroform, and it was with great difficulty that the somniferous influence could be sufficiently prolonged. I first drew the urine away, and then made an effort to dilate the urethral canal with a pair of dressing-forceps. I made little progress with this sort of manipulation, however, but finally succeeded, so as to introduce the little finger into the bladder, and afterward the index finger, when I could easily distinguish the "pin." Of course it was wrong end foremost, but it was no trouble to turn it round. I succeeded in removing the pin with the finger alone. Dr. Cass informs me that the patient did well, no grave symptoms having supervened Simple carbolized oil was used externally to the meatus. Such cases as this are interesting to the votaries of medicine, as we find but a very limited number tabulated.

Medical Societies.

THE SIGNIFICANCE OF GASTRIC AND ABDOMINAL SYMPTOMS IN THORACIC DISEASES.

By WM. CARSON, M. D., one of the Physicians to the Cincinnati Hospital, and to the Good Samaritan Hospital. Read before the Academy of Medicine, Cincinnati.

Symptoms occasionally appear in our examinations of patients, that seem out of place in what are otherwise intelligible conditions. Some of these occupy not merely a negative attitude, but are positively misleading in diagnosis. We propose to consider some, which have come within our own observation, and others that are found recorded in clinical reports.

Difficulty of swallowing in various degrees, abdominal and epigastric pains are those to which we shall more particularly refer.

We beg to allude again to the case of aneurism of the descending aorta, just above the diaphragm, which we have already reported to the Academy, with a presentation of the specimen.

A colored woman, over fifty years of age, without unusual family or individual history, came under our care about two weeks before her death, with the following prominent symptoms: She was feeble and thin, having become so, but gradually, within a few months previous to my seeing her. She complained of pain over the left side of her chest and also toward the left lumbar, and in the epigastric region. She vomited her food as soon as swallowed, and had been doing so for two or three months. It came up without effort. She believed that there was obstruction low down toward the stomach. Had never vomited or expectorated blood. Pulse was usually over 90. Temperature normal. Bowels at first constipated, but a few days before death, profuse diarrhea came on. No general dropsy or edema.

On inspection of her chest, an extended impulse and heaving was observed over nearly the whole of the left anterior regions of the chest. There was no special localization of movement, except at the site of apex beat, which was a little outside of its usual place. Palpation could not detect any circumscribed pulsating mass. There was some vague impulse in the epigastric region. Precordial dullness measured about four inches in diameter. Increased resistance over the same region.

A loud murmur was audible over the base as well as toward the apex beat, but was most distinct at or a little within the apex beat. It was quite audible in the epigastric region and in the axillary and subscapular regions of the left side, though we do not recollect that it increased in loudness toward the spinal column. Lungs healthy. The symptomatology can be divided into that relating to the cardiac or vascular action, and that relating to the digestive system.

We suspected, from the peculiar physical signs pertaining to the left thorax, that there was aneurism, but, after an examination, concluded that the murmur was cardiac. We could not localize two centers of pulsation or sound; nor could we feel a pulsating tumor in the front or rear. There were no pressure symptoms, such as increased development of venous circulation, local diminished respiratory sounds, stridulous breathing, variations in pupil or voice, and radiating pains; no pressure symptom except dysphagia, which, where dependent on aneurismal pressure, is usually associated with some other of the symptoms above mentioned. Up to this point, it seemed reasonable to refer the thoracic disorder to the heart and not to the aorta. In favor of a stomachic origin were the facts of advanced age, incessant rejection of food, a sense of stricture beneath the lower sternal and epigastric region, emaciation, apparent cachexia, and epigastric pain; but no abdominal tumor. The relation of the stomach symptoms to the cardiac disturbance was also a subject for consideration, but it is probable that a majority of observers would have excluded the relation of effect and cause between them. There were not present the evidences of diminished arterial and increased venous tension, which produced so much derangement in the functional performances of the abdominal viscera, during advanced heart disease. The most natural explanation was then to pronounce the case essentially organic disease of the cardiac extremity of the stomach. Post-mortem showed an aortic aneurism just above the diaphragm, which pushed forward and flattened out the œsophagus at that point, so that no food—fluids or solids—could pass. The heart was slightly enlarged, and had evidently been brought into closer and more extended contact with the precordial region by the forcible pulsations of the aneurismal tumor behind it. Here, then, were dysphagia, stomach symptoms, and epigastric pain dependent on thoracic disease, though there were good reasons to refer them to abdominal disease. Walshe* says that it must be confessed that "very small sacs behind the heart, unless some accidental circumstances throw light on their existence, are exceedingly difficult of positive detection." This statement is confirmed by the following case occurring to Hughes Bennett.† It was the case of a woman, where the association of gastric symptoms, vomiting, and emaciation, with aneurisms of the aorta, was quite puzzling One aneurism, which was detected during life, but which, to some extent, simulated malignant disease of the pylorus, was situated below the diaphragm. The other, which was not observed during life, was found pressing on the thoracic duct. There was, besides, an ulcer of the stomach of an oval form, with depressed surface, with callous margin and base, and of the size of a filbert. The extreme emaciation had probably two factors—the undiscovered aneurismal pressure on the thoracic duct and the ulcer of the stomach—neither of which related to the aneurism, which was detected at the cœliac anis.

We reproduce an instance of association of similar symptoms with another form of intra-thoracic disease. It has a sad and recent interest, inasmuch as it is the case of the recently deceased eminent English author and practitioner, Henry W. Fuller, author of the noted works on "Rheumatism," and on the "Heart and Lungs." It is besides illustrative of the difficulties and fallacies of physical diagnosis. The account is taken from the British Medical Journal, and written by his brother, who is a physician. He was asked on Monday, December 8th, to see his brother; and found him with incessant, short, hacking cough, with expectoration of glairy mucus, and great pain in epigastrium, extending over the whole region of the liver, with severe intercostal pain of right side; pulse intermittent and irregular; tongue coated, but moist; temperature 102; urine scanty, high colored, and loaded; no physical signs of pleurisy or pneumonia; percussion equal on both sides; inability to expand the lung on account of pain. Had been quite well until previous day, when he was forced to return home, feeling poorly, short-breathed, and unable to eat dinner. The next day he managed to see his morning patients, but was forced to return home again on account of pain and irritating cough. Bowels not well relieved, though he had taken pills. Diagnosis—rheumatism of diaphragm and intercostals. Tuesday, 9th, somewhat relieved; pulse more regular; temperature 101; urine still scanty; bowels relieved with dark bilious evacuations. Got up and receivedhis patients at home, but did not leave his house. 5 P. M. Went to bed again worse. 6 P. M. Temperature 100; pain and cough less. December 10, remained in bed and was much relieved in the evening; pulse regular, soft, 88; cough irritable on his back, but better on his right side. Whenever *he took food complained of pain on swallowing* and for *some time* afterward in *the epigastrium.* On the 11th, much better and saw some patients; afterward had a severe rigor, followed by profuse perspiration, but at night temperature 99; tongue cleaning at edge; pulse 84, soft and regular. 12th, much better; taking quinine and acid mixture; temperature 98½; pulse 80; urine free, clear, abundant; worked at correcting proof of his new edition on rheumatism till 11 P. M.; did not sleep. 13th and 14th, became gradually worse, with more discomfort and pain on swallowing; more cough and malaise; tongue more dry; urine loaded; pulse 86; temperature 100. 14th, afternoon, another rigor; evening, temperature 102. "I could detect nothing by a most careful examination of the chest. No head symptoms; sat up and conversed about his case and other subjects. At 8.30 A. M. was told that he had a quiet night, but was obstinate in refusing food and medicine; in a semi-comatose condition, and gave no answer to questions; unable to protrude tongue; conjunctiva congested; pupils somewhat contracted; temperature 103; pulse 96; scalp hot; difficulty in swallowing more marked; abdomen soft; urine passed under him; slight ptosis of left eyelid." It was agreed, with Sir Wm. Jenner, that there was blood poisoning, probably uræmic. In evening a small quantity of urine was obtained and found albuminous; pulse 100; temperature 104.4. 16th, worse; temperature 104. He had great difficulty in swallowing; urine not albuminous; more ptosis of left eyelid, slight drawing of mouth. Dr. Barclay and Dr. Sieveking united in treatment. "After consulting together and carefully going over the symptoms, the case was diagnosed as one of abscess of the liver, with pyæmic deposits in the brain." Post-mortem by Dr. W. H. Dickinson. Brain: Pia mater injected intensely; membranes thickened by old meningitis; a large number of abscesses in various parts of the brain, from the size of a mustard seed to that of a bean; a large collection of matter undermined the floor of both ventricles. The abscesses appeared recent.

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* Diseases of Heart, p. 371.

† Practice of Medicine, N. Y., p. 570.

Chest: At apex of the right lung was an old vomica of the size of a walnut, occupied by cretaceous matter. The lower part of the lung was intensely injected, approaching to hepatization. A few pleural adhesions existed over the vomica. No tubercles anywhere. The left lung was attached to the chest by a few adhesions at the back. The lung was congested posteriorly, but otherwise natural. In cutting through the root of this lung, the cavity of an abscess was exposed, which was partly emptied, but, if distended, might have held an orange. This lay in the posterior mediastinum and in contact with the root of the left lung, the outside of the left bronchus being somewhat evaded. It lay posterior to the pleural cavity, close to the left side of the œsophagus. It was surmised that it had originated in one of the bronchial glands. Heart uncontracted, valves healthy.

Abdomen: The peritoneum was free from adhesions, and there were no obvious signs of disease in this cavity. The liver was perfectly natural, except the presence of a gallstone, almost the size and shape of an olive, in the gall-bladder. Kidneys full size, smooth, and natural, except somewhat congested.

Here we have the dysphagia produced by a post-pleural abscess, which pressed on the œsophagus, and with it such abdominal symptoms as led to a mistaken diagnosis of hepatic abscess. The thoracic difficulties escaped detection altogether. Had more emphasis been placed on the symptom, dysphagia, it might possibly have led to a more correct interpretation of the case.

That pericarditis may produce difficulty of swallowing and mislead the practitioner, is strikingly shown in the case recently reported to the Academy of Medicine by Dr. Muscroft.

A young and healthy woman believed that she had swallowed a bone or something similar at her dinner. Up to that hour neither she nor her friends had observed any deviation from her ordinary good health. She believed that the morsel was still in her throat or somewhere between that and her stomach, and felt relieved by the passage of a probang. On the following day, after a return of the sensation of obstruction, she expressed herself again relieved by the passage of the probang. After a short time she gave evidence of pneumonia, and at the end of about two weeks she died rather suddenly. At the autopsy, pericarditis, with large effusion, was found, and some congestion of the lungs, but no evidence of recent or old obstruction in the œsophagus. The apex of the heart was found adherent to the pericardium in front, so that there was transmission of the heart sounds, and some apex movement was perceptible. Thus a correct judgment was rendered exceedingly difficult.

Endocarditis is sometimes attended with difficulty of swallowing and abdominal pains and tenderness, as we have exemplified at this time, in a case which we have been visiting for some days, in consultation with a physician of this city. A young married woman seems to have been having for several weeks a febrile attack, which had some features of periodicity about it. When I first saw her there was slight febrile temperature. Observations every two hours, from 9 A. M. to 5 P. M., showed a temperature of 99, except at 5 P. M., when it was 101. What was most prominent was a greatly disturbed cardiac action. There were increased tenderness and dullness in the precordial region, great irregularity and feebleness of pulse, and a loud systolic murmur heard most distinctly at the apex beat, which was strong and very much to the left of and lower than its normal place. The murmur was loud in the whole of the left back and distinct in the right back. At the apex it was quite ringing or metallic, with a distinct musical note at the base apex and angle of the left scapula.

There was no history of rheumatism, nor any sufficient cause in her history for the unusual conditions existing. After a few days a tender and limited swollen spot was observed on the outside of the left ankle-joint, and shortly other tenderness at the right and left wrist-joints. The case seemed then to be one of rheumatic fever, with its first localization in the heart, endocarditis, and subsequently joint affection. Throughout she has had, and had yesterday, difficulty of swallowing, and a good deal of epigastric and abdominal pain, besides precordial and brachial angina-neuralgic pain. They are not so severe as a week since, neither is the murmur so distinct, but still heard. The abdominal pain extended to the umbilicus; most felt in the epigastrium. In equal pace with the improvement in the joint affection and the physical signs of endocarditis, has been the improvement in the anginal and the abdominal pains. Her pain was so great in swallowing, that she refused to take some solid articles of food, because they gave her increased suffering. She was threatened with a systolia very seriously, but under efficient doses of digitalis infusion there was marked improvement in ventricular contraction and general circulation. It might be conjectured that pericarditis has existed here, but a careful examination has failed to detect any other than endocardial and possibly myocardial trouble.

That disease of the heart may produce such and more threatening abdominal symptoms is evident from the following histories with post-mortem verification. They are reported in the fifth volume of St. George Hospital Reports, by Reginald Thompson, as instances in which dilatation of the heart was rapidly developed, or as cases of acute dilatation.

CASE 1.—A strong well-built laborer, aged 23, was admitted into the hospital March 13, 1868. Six days before admission, after work, he was seized with violent pains below the region of the liver and terminus; but notwithstanding these symptoms, he ate a hearty meal and went to work again. From that time he suffered pain, and was brought into the hospital in a very precarious condition. He was almost collapsed, cold, and clammy; the face blue and congested. He was suffering from orthopnœa; the tongue was dry and furred; he had intense pain in the right hypochondrium below the liver; he was vomiting occasionally. The liver was found to be large; he passed no urine during the time he was in the hospital; the pulse was extremely small and rapid, and the heart sounds were very hurried and extremely indistinct. I was unable to say if there was any murmur. He had all the aspect of a patient collapsed from intestinal obstruction.

At one o'clock on the following morning he was seized with severe cramps in the muscles; and he died at 4 A. M., after a severe attack of cramps. Post-mortem: The body was well-nourished and developed; the lungs were very much congested and full of black blood; the liver and kidneys were congested, and the stomach and intestines were found in the same condition. The heart was very large, quite uncontracted, and contained a quantity of scarcely coagulated blood. Both ventricles were very much dilated, and the auricular ventricular openings much enlarged. The mitral valve was slightly atheromatous. The muscular structure was pale and fatty. The weight of the organ was eighteen ounces.

CASE 2.—A man, æt. 28, was admitted in December, with the following symptoms and history: Two weeks before admission he was in good health; but after lifting some heavy weight he became suddenly very ill, and although he did not faint he sweated profusely, and was seized with acute pain, in the region of the heart and down the left arm. Notwithstanding this, he went to work; and continued at work up to within five days before admission, when he became very much worse, suffering from vomiting and cardiac pain. He had spit blood since the injury.

On admission, on the 25th of December, he was in a very dangerous condition, with a look of much anxiety; in much pain, especially about the abdomen; constantly vomiting and retching, and suffering from intense thirst. The pulse was very irregular and feeble. His chief distress was the abdominal pain. A loud blowing murmur was heard over the base of the heart from the sternum to the line of the left nipple, and more or less over the whole heart's surface, and this organ was evidently very much dilated. A very marked throb was perceptible between the third and fourth and the fourth and fifth ribs, from the sternum to the left nipple. The apex beat was between the sixth and seventh ribs. The liver was very large, the belly distended, and the urine was dark and albuminous. Pulse 108. He became semi-comatose on the 30th, and made attempts to scratch his heart, as if from pain. Died on the morning of the 31st.

On examination, the organs were found much congested. The heart was much dilated, the ventricles being very much thinned, and the auricles being even transparent in places; the auriculo-ventricular openings were very much enlarged—the left admitting five fingers, the right six. The structure was soft and fatty. The patient had all the appearance of a man suffering from severe intestinal obstruction. The constant vomiting and retching and the severe abdominal pain seemed to point to injuries far from the real center of disease.

Dr. Thompson recorded another case with similar symptoms, where, however, recovery took place. They came on after unusual effort. Had pains in bowels and back, and pulse very small and 130. He recalls seven such cases altogether, in his experience.

Handfield Jones* gives the case of a woman, aged 43, with bronchial catarrh and asthmatic paroxysms She had "wearying, aching pain at the epigastrium, and along the margin of the ribs." After a severe paroxysm of asthma, a day or two, " she had a most severe attack of pain in the abdomen, attended with retching." She afterward "became exceedingly sore and tender all about the epigastrium, right hypochondrium, and loins."

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*Functional Nervous Disorders, 1st Lond. ed., p. 420.

These are very interesting cases, and present difficulties of interpretation that might be sources of differences of opinion. They are well worthy of careful study: first, in respect to the question of acute dilatation of the heart, and its consequences; secondly, with reference to the relation of the abdominal symptoms to the changes noted after death in the heart and lungs. We intend to refer to the dilatation of the heart only so far as it may be the starting-point of the congestions in the lungs, liver, and kidneys That dilatation can be developed within a few hours is admitted; that, thus rapidly appearing, it may be the antecedent of pulmonary, hepatic, and renal congestions is not so familiar a fact, because, for one reason, the prominent and most easily detected condition is the pulmonary congestion, and because it is apt to be accepted as the ultimate fact in the case. In Dr. Thompson's cases there was an early and great irregularity of feebleness of heart action, which seemed to succeed physical effort. Post-mortem showed structural change, which might well be a basis for unhealthy, dynamic performance, that would allow the development of the discovered congestions. To connect the excessive abdominal pains, cramps in muscles, etc., which are the *misleading symptoms*, with the central thoracic trouble, whether acute dilatation of the heart or pulmonary congestion, is a more difficult matter. Yet there are some anatomical and clinical facts to which we may refer in attempted explanation. Frank, J. P.,* in 1791, called attention to the channels through which spinal congestion might occur in connection with diseases of the heart and lungs, in the following language: "From the facts that the most of the vertebral veins are disgorged into the intercostal veins; that all the intercostal veins, except the first, which, oftenest, is turned into the subclavian vein, terminate in the vena azygos; that the vena azygos pours the blood which it contains into the vena cava descendens, it follows that all the causes which place an obstacle to this evacuation, such as diseases of the lungs and right heart, should determine venous plethora, commonly called hemorrhoidal, in the vertebral canal."

Jaccoud† says: "Let us add to these very just observations of

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* De vertebralis columnæ in morbis dignitate, 1791, quoted in Kohler; Meningitis spinalis, p. 138; Jaccoud, "Paraplegies et Atanie," p. 266.

† Jaccoud, loc. cit., p. 266.

Frank, the tortuous tracks of the spinal veins, the absence of valves in their interior, the absence of muscles which facilitate by their contractions the course of the blood in these channels, the retrograde pressure produced by the movements of expiration, and we will find ourselves in presence of an ensemble of conditions, which are not realized to the same degree by any other part of the venous system, and which are all eminently likely to promote the stasis of blood in the veins of the spine, and the passive distention of vascular walls." Kohler* adds that a continuance of this stasis results in exudation of lymph, etc., and other organic changes. Such are the principal anatomical facts, by which a connection between symptoms apparently very remote may be mediated.

Next we have clinical experience of acts. Kohler† says: "We have, in numerous sections of persons deceased with pleurisy, pneumonia, acute and chronic tuberculosis, and heart-diseases, never omitted to examine the spinal cavity and cord, and found a constant presence of hyperæmia of the internal anterior and posterior spinal plexus, and have been able to demonstrate the residua of a more or less chronic inflammation of the arachnoid and pia mater of the spinal columns."

Leudet‡ says: "I have been able, thanks to the zeal of one of my pupils, to examine the spinal cord and its envelopes in a great number of cases, and I have convinced myself that lesions of the spinal meninges are of great frequency. These different lesions have been oftenest met by me in phthisis, in organic diseases of the heart, in diseases of the kidneys." He mentions various nervous phenomena, such as anæsthesia of limbs, abdominal pains, etc., as occurring in cases of phthisis, heart-disease, etc., of which he gives full details, with post-mortem results. He says:§ "Visceral pains are a rare exception, if I were to quote my personal experience; however, I have seen, in one case, the pain, at first localized in the cord, extended during some days to the two sides of the abdomen and the two testicles, without any hyperæsthesia to contact." Kohler‖ quotes a case of Lambert, where, after a pleuro-pneumonia, tetanus appeared. The section showed a significant inflammation of the spinal membranes; also, a case of broncho-pneumonia in a child, where trismus, opisthotonos-paroxysms, and spasms in the lower extremities appeared. A high degree of hyperæmia of the cord was noted. Another, of organic disease of heart, with paralysis of tongue and extremities, with similar lesions of spinal cavity.

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* Loc. cit., p. 141.

† Ib.

‡ Etude clinique des troubles nerveux peripheriques dans le cours des maladies chroniques. Archives Generales, vol. 1, 1864, p. 273.

§ Ib. 274.

‖ Ib. 139, foot-note; pp. 144, 147.

These facts, with others that might be mentioned, such as Woillez* gives of nervous phenomena in pulmonary congestion, are sufficient to show a relation existing between thoracic diseases and certain and varied nervous phenomena, apparently originating in the abdominal viscera, and elsewhere.

A reference to the St. George Hospital cases will show resemblance in general to these last quoted. Given a heart with structural change and sudden dynamic changes originating in it, or a rapid pulmonary congestion, and it would not be unintelligible, in view of the anatomical conditions, why symptoms of spinal origin, such as severe abdominal pains, cramps in extremities, anæsthesia, etc., should appear. The sequence which, in chronic diseases of the heart and lungs, would require months to develop, appears in the acute cases in as many days and with fulminant symptoms.

We forbear, at present, to consider another aspect of these symptoms, that of neuroses, any more than to remark that two of the St. George Hospital cases were men of ordinary good health and free from any tendency to nervous disorder, and that such terminations are not likely in pure neurotic troubles of abdominal origin or localization. A practical application of the facts, shown in regard to the spinal relations of thoracic and abdominal symptoms, would be to endeavor to obtain relief (in addition to other treatment) by meeting the liabilities to spinal congestion, with cold applications, revulsants, etc., and by such remedies as tend to control the circulation in the spinal meninges cord.

We have not attempted to indicate all the aspects of this subject. The facts expressed we do not believe to be mere coincidences, and are the more worthy of study because of their mystery and pronounced expression. We may take another opportunity to consider some other relations of congestion of thoracic and abdominal organs and diseases of the central nervous systems, cerebral and spinal.

REMARKS BY DR. BARTHOLOW.—We are very much obliged to Dr. Carson for having brought before us so many interesting facts bearing on the subject of the relation of gastric and abdominal symptoms to thoracic diseases, but regretted that Dr. C. had not taken up the part which the great nerve trunks played in the causation of these symptoms. It is a well-known law of the nerves that pressure on a nerve trunk is felt, not at the point of injury, but in its peripheral distribution, or its end in some of the organs. Pressure of an aneurism in the thoracic cavity on the pneumogastric may cause symptoms referable to the peripheral distribution of the nerve in the stomach and intestines, pain, nausea, and vomiting. Pressure of an aneurism of the arch of the aorta on the left recurrent laryngeal causes spasm of the muscles of the larynx. Such are some of the direct results of pressure. Numerous other symptoms are caused by the so-called reflex action. Dysphagia may be due to reflex spasm of the muscles of the pharynx, by an irritation transmitted through the branches of the pneumogastric. By pressure on the sympathetic, are produced those curious symptoms—inequality of the pupils, unilateral sweating of the head, etc. In a paper intended to present the so-called anomalous symptoms in thoracic diseases, important facts of this kind ought not to have been omitted. With regard to the case of the late Dr. Fuller, of London, alluded to by Dr. Carson, the report of which recently appeared, and had coincidently been illuminated by the results of the autopsy, the case was certainly obscure. The suppuration in the bronchial glands could not probably have been recognized, but certainly the evidence of disease long existing in the lungs should not have been overlooked. The pains in the chest were assumed to be rheumatic, because a doctor must have, according to the fitness of things, the disease of which he makes a specialty. The fallacies of physical diagnosis alluded to by Dr. Carson in Dr. Fuller's case were probably due to inattention on the part of the attending physicians, and the signs of pulmonary disease were not found, because they were not looked for.

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* Traite Clinique des Maladie Respiratoires.

DR. CARSON replied to Dr. Bartholow that it was not his purpose to, and indeed he could not, in a paper so limited, discuss this subject in its broadest significancy, he had not time to go fully into the discussion of the subject in all its bearings; and had only intended in the paper just read to present some of the prominent facts of the subject. He may take another occasion to consider some of the extensions of this subject that are suggested by the paper.

UNION MEDICAL ASSOCIATION OF NORTHEASTERN OHIO.

Quarterly meeting, February 3, 1874, President Thos. McEbright, M. D., in the chair.

This being the annual meeting, the following officers were elected for the ensuing year: President—C. N. Lyman, M. D., Wadsworth; Vice-Presidents—L. Slusser, M. D., Canton, and J. M. Weaver, M. D., Wooster; Secretary—L. S. Ebright, M. D., Akron; Corresponding Secretary—A. W. Ridenhour, M. D., Massillon; Treasurer—W. J. Underwood, M. D, Akron.

Dr. Slusser, chairman of committee to memorialize the legislature on the subject of alleged malpractice, reported. Report accepted. (Memorial published in the LANCET of February, 1874.)

Committee on Admissions reported the names of Drs. Geo. Ligget, of Wooster, and James M. Palmer, of Dalton, for membership. Elected. Adjourned for dinner.

Re-assembled at 1½ P. M., Dr. Lyman presiding.

The following standing committees were appointed:

On Finance—Drs. Eberhard, Sherman, and Sisler.

On Admissions—Drs. Foltz, Weaver, and McEbright.

On Ethics—Drs. Hard, Howard, and Robinson.

Thos. McEbright, the retiring president, delivered his valedictory address on hygiene, which was listened to with attention.

On motion of Dr. Sherman, a vote of thanks was tendered the retiring president, and the address referred to the Committee on Publication.

Dr. J. K. Holloway read a paper on "The Relation of the Mind to Disease."

Dr. J. D. Robinson read an elaborate essay on "Sponge Tents and their Uses in the Treatment of Disease." The paper was discussed with interest.

Dr. Odell's paper on "Intermittent Fever and its Treatment" was discussed by the members generally.

The following resolution was offered by Dr. J. D. Robinson:

"*Resolved*, That believing as we do, that the Army Medical and Surgical Library and Museum, at Washington City, is a public as well as a special benefit to the entire medical profession, we would respectfully ask that the usual donation be granted for its support and improvement; and that a copy of this resolution, signed by the president and secretary of this society, be forwarded by the secretary at his earliest convenience to Hon. J. A. Garfield, M. C., chairman of Committee on Appropriations, House of Representatives; to Hon. Lot A. Morrill, chairman of Committee on Appropriations, U. S. Senate; to Hons. John Sherman and Allen G. Thurman, U. S. Senate; Hon. Jas. Monroe, M. C., and Hon. L. D. Woodworth, M. C."

Carried.

The following gentlemen were appointed for duty at the next meeting:

Lecturer—A. Metz, M. D., Massillon; Alternate—A. M. Sherman, M. D., Kent.

Essayist—L. Slusser, M. D., Canton; Alternate—J. M. Weaver, M. D., Wooster.

Delegates to the American Medical Association—Drs T. Phillips, Canton; N. S. Eberhard, Wadsworth; S Hudson, Medina; J. D. Robinson, Wooster; L. Slusser, Canton; L. S. Ebright, S. T. Odell, and E. W. Howard, Akron.

By Dr. Jewett: "That members be appointed to make written reports of cases." Carried.

Appointed—Drs Jewett, Eberhard, Cassidy, Chandler, Underwood, and Ridenhour.

Subject for discussion at the next meeting—"Delirium Tremens and its Treatment."

Dr. Robinson extended an invitation from the Wayne County Medical Society to hold its next session in Wooster.

Society adjourned, with a membership of eighty-three (83), forty (40) of whom were present, to meet in Wooster, Ohio, on the second Tuesday in May, 1874.

C. N. LYMAN, M. D., *President.*

L. S. EBRIGHT, M. D., *Secretary.*

The Abortion of Coryza—Dr. J. S. Prout (*Medical Record, January* 1, 1874) recommends that as soon as the first symptoms of a coryza manifest themselves, a half-drachm dose of tincture of chloride of iron should be taken. This, he says, will generally suffice to cause a subsidence of the symptoms within half an hour from the time it is taken; it may require to be repeated three or four times at intervals, varying according to circumstances.

New Remedies.

Reported by J. S. UNZICKER, M. D.

Sulphate of Cinchonidin.—This new alkaloid of the cinchona, lately introduced by the well-known firm of Powers & Weightman, is deserving due consideration by the profession.

Sulphate of Quinidia.—Although used to some extent for years past, it has never received the attention it deserves—being equal in effect to quinine, and furnished at half the price of the latter, making it worthy the attention of the country practitioner, whose quinine often costs him more than all the other medicines he uses. Most practitioners, however, are too much prejudiced against all substitutes of quinine, and rather pursue the old beaten track, than to give a fair trial to any of them.

Dr. Fogo, of Meerut, writes: "In small doses all the alkaloids produce the same therapeutic effects; that is, as tonics, anti-periodics, and anti-neuralgics. Hypodermically and internally they have proved successful. In large doses they are all equally energetic, and produce their effects rapidly. They have been successfully used as anti-periodics and febrifuges. In many constitutional peculiarities where quinine can not be borne, these alkaloids will be found good substitutes, and can all be substituted for each other."

Dr. Bensley says: "So much convinced am I now on this point, that I should feel quite content, were I for the future left to deal with all my fever cases with no other preparation than quinidine and cinchonidine. When there is a tendency to diarrhea, or diarrhea already existing, or where quinine produced irritation of the bowels, cinchonidine was well borne."

Hydragyrum Nitrico-Ammoniacalæ.—This preparation is, according to Soubeiran, a proto-nitrate ammoniacal mercurial, and was once extensively prescribed in Germany and France for various diseases. It was also given in mixtures for chronic coughs, etc. It was best known by the name of *Mercurius Solubilis Hahnemanni.* Hahnemann being the first to introduce it, it was named after him.

But one of its most important physiological effects, of which no record has been made to my knowledge, is its prompt action in obstinate cases of *vomiting in pregnancy.* Cases that had resisted all other medication I promptly stopped by its use. I gave it in doses of one-half to one-eighth of a grain, rubbed up in a few grains of milk sugar, morning and night.

It is easier borne than most remedies usually given in those cases, and with less tendency to ptyalism than other mercurials.

Hospital Reports.

CASE OF ULCERATION OF THE WOMB—SERVICE OF DR. M. B. WRIGHT.

Reported by E. M. NELSON, Resident Physician.

April 10, 1873. S. L., æt. 36; married; domestic; colored woman; has had no children; one miscarriage at seven months, fifteen years ago; menses regular until three years ago; no hereditary taint in the family history.

For the last three years she has menstruated very irregularly, sometimes but two or three weeks, and at others several months intervening between the times of menstruation. At irregular intervals during this time she has suffered pain, which she has always referred to the region of the womb. This pain would disable her from work for a day or two at a time, and then would pass away. She had no excessive flow of blood during this time. Three months ago a purulent and exceeding offensive discharge commenced to flow from the vagina. This discharge is sometimes very profuse for a few days, and then for a day or two is almost wanting. For the last month the quantity and fetor of the discharge has increased, and at times the discharge consists of almost pure blood. She has never had any sudden hemorrhage; complains of pain in the epigastric, hypogastric, and lumbar regions.

Deep pressure in the hypogastric region causes pain, but no enlargement of the uterus can be detected. There is some tenderness over the left ovary. The discharge was so fetid that it was necessary to use a carbolated injection. Examining per vaginam, the uterus is found low down, and immovable. There is no external os, as the whole posterior wall of the neck is almost gone. The finger comes in contact with a hard, rough, irregular surface. There are irregular projections seemingly attached to the uterus by very slight pedicles, and almost ready to break off. The anterior wall of the neck is hard and smooth. No pain is produced by pressure upon either the smooth or rough surface, but upon the latter part the slightest touch causes some hemorrhage.

The general condition is good; appetite variable; she vomits often; has constant pain in epigastrium, more severe after a full meal; has a distressing sense of nausea almost all the time; bowels constipated; pulse 80, feeble: temperature normal. She has been married four times, and is anxious to get well as soon as possible, so as to marry a fifth husband.

Ordered to inject into the vagina a solution of carbolic acid, gtt xv to the ounce of water.

April 13. Ordered ℞. acidi carbolici, gtt. x; tr. opii; glycerinæ, āā ℥j. M.

This was applied by soaking a cotton ball in the solution, and pushing it into the vagina until it came into contact with the os uteri. This was done at evening, and the ball was removed in the morning.

April 14. Ordered acidi carbolici, gtt j, ter die, in simple syrup. As she does not sleep at night, chloral hydrate, qrs. vj, was ordered to be administered at bed-time, and to be repeated if necessary.

April 20. She suffers less at present than she did for some time before entering the hospital. The discharge has been very profuse for the last few days; at times, broken down uterine substance comes away. Considerable blood comes from her, mostly in clots; there has been no sudden or excessive hemorrhage. The discharge is so offensive as to make that part of the ward almost unbearable.

April 22. To-day the amount of discharge is slight, and almost colorless She complains of dull, aching pain in hypogastrium. For several days she has vomited her supper. She often vomits the first dose of chloral, but retains the second, and generally has six or eight hours' sleep after taking it. Bowels have not moved for several days; three compound cathartic pills and a half-ounce of salts had no effect; a soapsuds injection was followed by two copious evacuations, and she experienced decided relief of the pain in the pelvic region.

April 25. Discharge again profuse and bloody; appetite good; vomits part of her supper, even when she eats only tea and toast. Last night she could not retain the chloral, and rested none.

April 26. Gave syr. morph. comp. ʒj. instead of chloral. This relieved her pain considerably, but she slept none.

April 27. She slept a few hours after taking potass. bromid. grs. vj.

April 28. On digital examination, the posterior wall of the neck of the uterus seems to be still ulcerating, and the ulceration spreading upward toward the body. The ulcerative process is also extending to either side, and encroaching upon the indurated and still smooth anterior wall of the cervix

April 29. Rested well; pulse 84, feeble; little discharge yesterday or to-day, scarcely any blood in the discharge. She says that her feet and legs are cold and stiff; that she moves them with difficulty. The nurse, however, states that she gets in and out of bed very readily. She urinates freely, and without pain.

May 7. The discharge has been very profuse of late. Bromide of potash seems to have lost its power in her case. Bimeconate of morphia had the effect of relieving pain, but gave no sleep. Last night she slept very well, after taking one dose of bromide of potash and chloral hydrate, āā grs. xx.

May 10. She vomited several times during the day. At evening she seemed very weak. Ordered spts. frumenti ℥ss, every three hours.

May 14. Her stomach has been very irritable during the last four days. She has taken little nourishment, except some eggnog from time to time. She seems to be sinking gradually.

May 15. Died at 3 A. M.

Autopsy twelve hours after death:

There was a very marked degree of rigidity. On section, there was a layer of subcutaneous fat, three-fourths inch thick, all over the abdominal wall. There were strong pleuritic adhesions everywhere over both lungs. The lungs were healthy throughout.

The heart was normal, except a slight thickening of the anterior curtain of mitral valve.

Liver normal in color and size; in consistence, somewhat softened.

The mucous membrane of the stomach was somewhat softened, and beneath it there was some ecchymosis.

The weight of the left kidney was 9½ oz., surface lighter than usual. Capsule easily removed; surface beneath smooth. On section there was a line of congestion around the bases of the pyramids; the rest of the section was of a lighter color than usual. Scattered throughout the cortical and interpyramidal portion of the entire kidney, were masses of a yellowish-white substance, about the size of a pin's head. Measurements were 5½x2¾ inches. Right kidney weighed 7½ oz.; measurement, 4¾x2¼ inches. Surface and section were both lighter than usual, but were otherwise normal.

On opening the vagina, the neck of the uterus was found to be entirely destroyed, and in its place there was a pliable cauliflower-like mass, which had excavated the uterus half-way to the fundus.

The right ovary contained a small cyst, and an abscess of the size of a pea. Left ovary normal.

THORACENTESIS IN A CASE OF CHRONIC PLEURISY—SERVICE OF DR. WM. CARSON.

Reported by E. M. NELSON, Resident Physician.

April 19, 1873. L. H., æt. 38; German; butcher. Family history good. Has been in the habit of drinking to excess. One year or more ago he commenced to have pain in the left side. Since that time has been troubled with dyspnœa, which is very severe after any exertion. Never had any disease which confined him to bed. Has lost no weight.

Present condition: Man rather above average height; face flushed; tongue clean; appetite good; bowels regular; pulse 75.

Physical examination: Left side of the chest seems fuller than the right. Apex beat of the heart is observed in the epigastric region. Expansion of the chest is much greater upon the right side. On the left side vocal fremitus is nil; percussion absolutely flat all over the left chest anteriorly, laterally, and posteriorly; vocal resonance very feeble; no respiratory sounds audible; heart sounds very feeble. The latter, normal in character, are heard most distinctly to the right of the median line. Ordered potass. iodid. gr. viij, ter die.

April 27. He sleeps well, but is troubled at times by cold sweats coming on after midnight. He coughs some, but does not expectorate. Has stitches in the side occasionally. Pulse 102; respiration 28.

May 3. He is able to assist a good deal in the work about the ward. Physical signs unchanged.

May 20. He is slowly improving; air enters the lungs better than heretofore.

June 5. Discharged improved.

July 30. Readmitted with same trouble.

Physical examination: Intercostal spaces on left side are fuller than upon the right side. No decided difference in the measurement of the chest at the level of the ensiform cartilage. The right side has greater freedom of motion than the left. Vocal fremitus distinct upon right side, nil upon left. Vocal resonance indistinct upon left side. Percussion same as before. Auscultation shows feeble, distant respiratory murmur at the apex of the left lung, both anteriorly and posteriorly. Respiratory sound can also be heard in the axilla. A little below and outside of the angle of the scapula are respiratory sounds of an indistinctly bronchial character. On the right side the respiratory sounds are good, but subcrepitant râles are to be heard. There is a small amount of mucous expectoration. Dyspnœa is present. Respirations 48 per minute, pulse 120. Ordered potass. iodid. grs. x; syr. ferr. iodid. gtt. xx, ter die

July 5. A trocar was inserted this morning at a point about two inches below the inferior angle of the left scapula. A small aspirator was then adjusted to the canula, but after a few minutes a Davidson's syringe was substituted for this. Sixty-five ounces of serous fluid were withdrawn. The pulse, for a time during the operation, was quite feeble, beating 120 per minute; but later it became stronger. In the latter part of the operation he complained of a great deal of pain in the front and right side of the chest, especially beneath the sternum. After the withdrawal of the fluid there was a marked increase of the respiratory sounds.

July 6. Three soft yellow stools in the night; slept two hours; complains of pain across the whole chest, a little below the line of the nipples.

July 7. Seven stools in the last twenty-four hours. Ordered bismuth, ʒj; opii, gr. j, ter die.

July 8. Three stools last night; no appetite; feels very weak; pulse 120, respiration 36, temperature 99½°; lies down at night; less elevation of the chest in respiratory movements; some subcrepitant râles.

July 9. Diarrhea checked.

July 10. More air enters the lung above the point of puncture; some rubbing sounds at the puncture; pulse 108, respiration 36; profuse sweating at times; surface livid; three large stools to-day.

July 11. Pulse 126, respiration 36; sweats a good deal by day and night; tongue moist, but disposed to crack; three stools to-day.

July 12. No stool last night, one this morning; slept tolerably well; has not sweat so much to-day; some cough this morning, less this afternoon; slept a good deal during the day; lips rather livid; pulse 118; respiration 37, rather labored; groans in his sleep.

July 13. Says that the medicine nauseates him; stopped potass. iodid. and syr. ferr. iodid. Ordered ℞. ferri et quiniæ citratis, grs. v, ter die. Pulse 130, very feeble; respiration 40; tongue dry, with some whitish spots on the surface, disposed to crack; feet and legs a good deal swollen; walks with difficulty.

July 14. Died at 3:30 A. M.

Autopsy six and one-half hours after death: No cadaveric rigidity. On opening the thorax, sixty-eight ounces of milky serous fluid were removed from the left pleural cavity; and after the viscera had been removed, thirty-two ounces more of fluid, which was estimated to be one-half blood, were obtained. So eighty-four ounces of serous fluid were removed from the pleural cavity post mortem. Two ounces of similar fluid were found in the abdominal cavity.

Organs in situ: Anterior margin of right lung extends to the median line. Left lung not visible. After the withdrawal of the fluid the heart occupied a normal position. Stomach and bowels are distended.

Left lung: There were firm adhesions all over the surface of the left lung—so firm that they could not be torn off without lacerating the lung. Measurements of the left lung: vertical, seven inches; antero-posterior, four and one-half inches; transverse, two and one-half inches. The whole substance is softer and more homogeneous in texture than normal, but floats upon water and seems to be free from tubercular masses.

Right lung: Upper lobe infiltrated, and containing white granular masses, apparently tubercular. Superior portion of this lobe is consolidated, a section of it sinking in water; middle lobe crepitant, but infiltrated with granular matter, same as superior lobe. Lower lobe the same.

Heart 4x3½ inches; pale; left ventricle empty; walls three-fourths of an inch thick; cretaceous deposits upon aotic valve. Right ventricle empty, valves competent.

There were firm adhesions all over both surfaces of the liver.

Nothing of especial note in any of the other organs.

CASE OF AORTIC AND MITRAL STENOSIS—SERVICE OF DR. JOHN DAVIS.

Reported by E. M. NELSON, Resident Physician.

June 4, 1873. Geo. M., æt. 21; coachman. For the last four years he has had an attack of inflammatory rheumatism every winter. For at least three years he has felt a shortness of breath on slight exertion, with an increased action of the heart. Orthopnœa was very marked. Feet and legs have been edematous for several months. General condition is tolerably good Percussion shows the heart to be greatly hypertrophied. A double bruit is distinctly heard. The systolic bruit, with intensity at the base, is rough; the diastolic, with intensity at the apex, is higher pitched and clearer. Ordered ℞. spt. ætheris nitrosi; tr. digitalis, āā ℥ij; liquor ammon. acetat. ℥iss M. Sig Take ʒij every three hours.

June 16. The edema of the feet has entirely disappeared.

July 2. Discharged improved.

December 8. Readmitted for same trouble.

January 12. Had a chill to-day.

January 20. No more chills, but complains of general debility. He has also a hemorrhoidal trouble.

January 28. Within the last two or three days the lower border of the liver is found much lower than usual.

February 2. Did not rest very well during the night. At 6 A. M. he was sleeping; at 7 A. M. there was nothing observed except hurried breathing; at 7:40 A. M. he raised himself up in bed, spoke to the patient in the next bed, said "good-bye," lay down and died.

The heart measures 6½x5¾ inches. The mitral valves are thickened and calcified; the orifice would not admit the tip of the finger. Aortic valves are thickened and roughened. Wall of left ventricle 1¼ inches in thicknes. Weight of heart 28 oz.

Liver measures 9x6x5½ inches.

Spleen very much indurated. Section darker than usual.

Kidneys 3½x2½ inches. Section normal, capsule easily detached. Consistence firmer than normal.

Autopsy eight hours after death: Cadaveric rigidity marked. Uncovered pericardium 4x5 inches. Right upper lobe of lung extended one inch beyond the median line. Left lung not visible on the removal of sternum.

Liver extends four inches below ensiform cartilage; in right mammary line, it extends three inches below margin of the ribs; in the left mammary line, two inches.

Apex of heart is in the sixth intercostal space, four inches to the left of the median line. Stomach visible to the extent of 5x2 inches, lying low in the abdominal cavity. Below this are the large intestines, which are distended. The pericardium is firmly attached to the outer surface of the heart. Some adhesions also between the pericardium and pleura; moderately firm adhesions over the left lung; slight ones over the right. Liver adherent to the abdominal walls. Left pleura nearly obliterated. Considerable fluid in the right pleural cavity. Some fluid also in the abdominal.

Lungs: At the base of the right lung there is a circumscribed induration, section mottled with dark pigmentary deposits; the rest of the lung of a grayish color. Left lung is more mottled with pigmentary deposits, and is crepitant.

How to Check Scarlet Fever.—"Stamping out" is the new and significant process for the arrest of many diseases, and in none can it be more effectually employed than scarlet fever. This should, of course, include isolation. All cases should be promptly reported to the health authorities, under heavy penalties for neglect, and all occurring among persons unable to afford seclusion, should be taken care of at public expense in appropriate hospitals, at safe distances from populous neighborhoods. And the rich should be compelled to provide seclusion in isolated rooms for cases occurring among them, or else relinquish the care of them to the health authorities, and be subject to the necessary costs. All clothes used by the patients should be disinfected or destroyed. Water-closets, cesspools, and drains attached to the hospitals and dwellings of the sick, should be thoroughly disinfected.—DR. JOHN MORRIS, *in The Sanitarian for February.*

Resident Physicians.—After two days' competitive examination for the position of resident physician of the Cincinnati Hospital, for the ensuing year, the following gained the desired situation: J. L. Firebaugh and R. Sattler, of the Miami Medical College; Theodore M. Wittkamp, of the Cincinnati College of Surgery and Medicine; J. W. Rutledge, of the Ohio Medical College.—*Gazette.*

Correspondence.

Letter from Central New York.

Editor Lancet and Observer: Perhaps your readers may be pleased to read a little gossip about medical matters as they appear in this central part of the Empire State. I fancy our doctors here are about the same as with you and elsewhere; the same anxiety for correct conduct and ethics—in others; and the same disinterested spirit to enforce the law, so far as their neighbors are concerned. We have the full proportion of doctors in Syracuse for the population as everywhere, and each new man must expect, as elsewhere, " to make elbow room." Still here, as everywhere, there is plenty of room on " the upper shelf."

I think medical societies are better organized here than in the West, and conducted with more systematic and continuous vigor. This perhaps grows out of the fact that the New York State Society is a representative body mainly. It differs in this respect very decidedly from the Ohio State Society, which admits to active membership every one who shows credentials of good standing in the profession. Hence, here there becomes a necessity for work *at home*, and those desirous of participation in the state society must work in the county societies for such character as will give them the proper rank and character for delegate.

Here in Syracuse we have a good working city society; but as its recent discussions have all had reference to mere local matters, I shall not at present give you any report of its proceedings. The secretary is Dr. F. H. Butler, a very accomplished graduate of Bellevue, and whenever we have anything of general professional interest, he has promised me faithful reports for the LANCET AND OBSERVER.

The first Tuesday in February every year, the *State Society* meets at Albany. As I held credentials as a delegate from Ohio, of course I was in attendance and made my little speech. I was introduced to the society by Prof. Quackenbush, of Albany, and welcomed by the president, Prof. Moore, of Rochester. By the way, many of your readers will recognize Prof. Moore as the charming lecturer on surgery, for a time connected with the faculty of the Starling Medical College, at Columbus. How strangely time affects our anticipations. I had expected to see comparatively a youthful man in Dr. Moore. He is vigorous, well preserved, but gray and fleshy, and looks elderly.

On the other hand, I had so often read the papers of Prof. White, of Buffalo, that I had expected to meet a venerable and ancient personage. I was quite as much disappointed. Though older than Prof. Moore, Prof. White retains a wonderful degree of youth and vigor. He read to the society a paper detailing additional cases of successful return of chronic inverted uterus. It will be remembered that Dr. White was the first—certainly among the first—to propose and successfully operate upon these sad cases. Prof. Mendenhall, of your city, has also successfully operated; and Dr. Sweeney, of Marion, Ohio, has reported several successful cases. Prof. White now reports in all eleven cases of successful return of inverted uterus by his plan of continued pressure, and one of his recent cases had been of twenty-two years' standing. In no case as yet has he met with failure.

I was struck with the appearance of the members of the society; so large a proportion of them were men of character in their appearance and contributions. But especially I was impressed with the courtesy manifested by the members in the course of debate, and their studied recognition of the worth of each other and their contributions to the common stock and common reputation, and their freedom from exhibitions of small jealousy and petty hebitude. Thus I could not but note the contrast in the respect paid to Prof. White, even by those who heartily contested some of his points, with such exhibitions, as, for example, on page 125 of your last issue, last paragraph, in which your correspondent, "C. D. P.," gives to Dr. Barnes, of London, a credit, which everybody of any obstetric information in your city knows, belongs to Dr. George Mendenhall.

So, too, I was very much gratified with a paper by Dr. Knapp, of New York, on "Intra-ocular Tumors," in which, incidentally, he made your Cincinnati oculist, Dr. Williams, prominent, by incorporating in full one of his cases, and presenting several specimens in illustration of the views of Dr. Williams. On Wednesday night, Dr. Swinburne, late health officer at the port of New York, gave an entertainment to the society and outside distinguished guests, at the Delavan House. There were six hundred in attendance. For next year, Dr. Geo. J. Fisher, of Sing Sing, is elected president, and the present efficient secretary, Dr. W. P. Bailey, of Albany, continued.

The *College of Physicians and Surgeons* of Syracuse, medical department of the University, has just held its second commencement under most satisfactory auspices. There were in attendance this session about thirty, and there were nine graduates. The commencement exercises consisted of the usual valedictory on behalf of the faculty by Prof. Towler; also, the reading of one thesis, and a class valedictory. Prof. Towler is a remarkable man. He has perhaps as varied capacity and as completely extended a knowledge as any medical teacher of this country, since the death of the late Prof. Chas. A. Lee, with whom he was at one time associated at the old Geneva College. He teaches languages and mathematics and chemistry at Hobart College; professor of chemistry in Syracuse Medical College; toxicologist for all Central New York, and analyst of ores, etc. He is also a practical photographer, and has introduced to photography some of its most important recent inventions.

The plan of this college is to give continuous medical instruction to students the year round. A regular course of lectures and demonstrations in the fall and winter, after the usual custom, with graduation at its close. This is supplemented with lectures, recitations, demonstrations, and clinics during the spring and summer. This spring the authorities of the University will erect a handsome edifice in the central part of the city for the use of the departments of medicine and law, and those most interested are just now engaged in maturing plans for every desirable appliance and convenience in connection with the lecture-rooms, museum, dissecting-rooms, and details generally of the new medical college building.

The city of Syracuse (as you remember, the old residence of Mr. Archimides) is a prosperous and wealthy city, and prides herself on her educational institutions. Her library, high-school, and the University, with its several departments now rapidly growing in proportions and importance, are pets with all the people.

Truly yours, E. B. S.

SYRACUSE, N. Y., *February*, 1874.

Reviews and Notices.

A Practical Treatise on the Diseases of the Ear, including the Anatomy of the Organ. By D. B. ST. JOHN ROOSA, M. A., M. D., etc.

Diseases of the Ear, including the necessary Anatomy of the Organ. By A. D. WILLIAMS, M. D.

Remarks on, by J. THOMPSON, M. D., of Indianapolis, Indiana.

In this age of books, when such a luxuriant growth of special medical literature floods the land, a superabundance may be looked for at no distant day; for where so much is written, much chaff, with but a modicum of grain, may be expected.

Now, as many practitioners supply themselves with but one text-book on each of the specialties, and as they frequently find themselves at a loss in securing the best, we therefore offer a few remarks concerning the same.

In a majority of instances the conclusion is reached that the book which contains the greatest number of pages, and costs the most, must certainly be the best. Distance, also, "lends enchantment," and *eastern* are usually preferred to *western* authors. A mistake is also frequently made in selecting one from a mere glance at the title-page, where, if it be found that an author has many positions in public institutions, and many etcs. to his name, he is immediately supposed to be better qualified to instruct, than is one who simply signs himself J. Smith, M. D.

Both of the above treatises are very practical. The work of Roosa has "A Sketch of the Progress of Otology," from the days of Hippocrates up to the present time. It is published W. Wood & Co., New York; contains 525 pages, and costs $5.

That of Williams is solely composed of practical matter. "He has endeavored to condense everything as much as the nature and extent of the subject would allow. Trying to exclude all impractical matters, he has admitted only what he considers essential to a correct understanding of the science of the otology of to-day." It is published by Robert Clarke & Co., Cincinnati; contains 284 pages of reading matter, and costs $3.50.

A few extracts from these valuable works may not be out of place. On pages 125, 127 of Roosa, in chapter on *Otitis Externa Diffusa*, we find: "If the use of leeches, the employment of scarification, and the warm douche do not wholly subdue the pain—which is quite unlikely—a small flaxseed poultice may be applied *in* the canal; but the ear should not be covered by a large poultice, as is often done. Such poultices relax the tissues to so great an extent that granulation or polypi are apt to spring up. . . . A poultice should never be applied to or on the ear for more than a few hours. They are almost as dangerous a remedy in aural as in ophthalmic practice, where they have caused the loss of many eyes." . . . "The popular remedies for ear-ache, dependent upon whatever cause, are usually sweet-oil and laudanum, molasses, Harlem-oil, glycerine, and a roasted onion." "The oil, laudanum, and molasses are tolerably efficient; but although they are useful in their property of stilling pain, they are far inferior to leeches, scarification, and warm water. Harlem-oil, and all similar stimulating applications, do nothing but harm, and increase the sufferings of the distressed patients. Warm vapor of any kind, the smoke from a cigar for example, is very grateful to an inflamed auditory canal or membrana tympani. I have not found much advantage from the addition of narcotics to the warm instillations, although there may be some benefit from their use. Magendie's solution of morphia is the agent I usually employ in the ear, using one part to eight of water, dropped when warm into the canal."

Dr. Roosa further adds: "Dr. A. D. Williams, of St. Louis, has recommended the use of a solution of a sulphate of atropia, two grains to the ounce, which is dropped into the auditory canal as a remedy for the relief of pain from aural inflammation. I have not as yet had sufficient experience in its use to give an opinion as to the value of the remedy in this class of cases. A suggestion from such a competent observer is well worthy of attention."

Dr. Roosa tabulates the remedial agents as follows: "1. Leeches; 2. Scarifications; 3. Warm douche; 4. Conical poultice; 5. Steam or warm vapor; 6. Opiates or chloral." He is much opposed to blisters in acute aural disease.

One chapter is devoted to *Otitis Parasitica*, and several cases are there reported, in which it appears that the growth was very difficult to remove, a recourse to the angular forceps being necessary. We also notice that each of these cases was treated with either sulphate of zinc, carbolic acid, or nitrate of silver. And yet the author states, on page 141, that "Dr. O. Green, of Boston, and Knapp, of this city, concur with me in believing that a thorough use of warm water is the only parasiticide necessary." On page 134 the doctor takes the ground that parasitic otitis is never a primary, but a secondary affection; that it never occurs where the ear was previously sound. Now we ask, if the above view is the correct one (and there can be but little doubt about it), where can the practitioner be found who is willing to rely on *warm water* alone?

During the cold winter of 1872, many cases of the black and green varieties of Aspagillus came under my notice, in all of which I found it impossible to remove the fungus by the aid of the syringe and warm water alone; but invariably had to resort to the forceps. And as they were all affected with diseases of the middle ear, and in two instances with polypoid growths, acetate of lead or alum was freely applied.

Dr. A. D. Williams recommends the use of from five to ten grains of carbolic acid to the ounce of water in such cases.

The following appears in the chapter on the *Meatus Auditorius Externus* by Williams:

"*Inspissated Cerumen.*—Occasionally a plug of wax sticks so tightly to the bottom of the ear that the syringing process has to be continued for some time before it becomes loose. My custom is to *persevere* till I succeed." . . . "The custom so common among general physicians, as well as specialists, of putting water or oils into the ears of patients to soften wax before they undertake to remove it, is, as it seems to me, a bad one, as they can not rely upon their return, and consequently they may get the credit of making their ears worse."

Many of us can certify to the soundness of the above advice.

Both authors take the ground that there is no such disease as chronic myringitis *per se*, unles it be of a traumatic origin.

In catheterization of the Eustachian tube, Dr. Roosa advises that it be "slid backward until the beak rests upon the posterior wall of the pharynx," then to be withdrawn and turned into the tube. Dr. Williams, on the other hand (and he has many supporters in this), says: "I do not follow these directions, for good reasons: 1. It is not necessary. 2. The contact of the instrument against the back of the throat causes violent spasms of the muscles in many patients, and even severe gagging efforts, and sometimes actual emesis, if the instrument is not withdrawn."

Having practiced both methods in numerous instances, I am convinced that the one recommended by Dr. Williams is the better; not only in causing less uneasiness to the patient, but in its being much more readily introduced. Indeed, if one will hug the floor of the meatus with the beak until one feels that it has passed the same. it will with the least rotary movement slip into the trumpet-shaped orifice of the tube.

Space will not admit of anything like a *review* of the above excellent text-books.

Specialists will (of course) procure both. General practitioners can learn all that is at present known from either of them.

Roosa, as an author, is already well known to the profession; and if Williams receives his just deserts, his most sanguine expectations will be realized.

Chemistry: General, Medical, and Pharmaceutical, including the Chemistry of the United States Pharmacopœia. A manual on the general principles of the science, and their applications to medicine and pharmacy. By JOHN ATTFIELD, Ph. D., F. C. S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. Fifth edition, revised from the fourth (English) edition by the author. Philadelphia: Henry C. Lea, 1873.

This work of 600 pages, 8vo, is peculiar, both in its scope and in its arrangement. No other American publication with which we are acquainted covers the same ground, or does it so well. In addition to an admirable expose of the facts and principles of general elementary chemistry, the author has presented us with a condensed mass of practical matter, just such as the medical student and practitioner needs. This will be found under the headings, "Apparatus," "Reagents," "Lists of Chemicals," "Analytical Charts for Ordinary Metals," "Analytical Charts for all Metals," "Acidulous Radicals and their Tests," "Analytical Charts for Acidulous Radicals," "Systematic Analysis," "Toxicology," "Examination of Morbid Urine and Calculi," "Officinal Preparations," "Quantitative Analysis," "Dialysis," and lastly, an appendix, in which are given a table of official tests for impurities in preparations of the British Pharmacopœia, saturation tables, and a table of the symbols, atomic weights, and quantivalence of the elements, according to the latest recognized authorities. The utility of the work as a class-book is enhanced by a judicious selection of questions and exercises. An index of *fifty-four pages* is added. The publisher's work is, as usual, unexceptionable. J. B. H.

An Elementary Manual of Chemistry. Abridged from Eliot and Storer's Manual. New York: Ivison, Blakeman, Taylor & Co., 1873.

The author of this abridgment, Prof. W. R. Nichols, of Massachusetts Institute of Technology, has attempted to embody a large amount of chemistry in a very small space. As far as the *number of topics* is concerned, he has succeeded. A good deal of space is, however, occupied with unimportant and doubtful matter, to the exclusion of more important facts; and, although the work has been done by the author passably well, and passing well by the publishers, we can not accord it *very* high praise or a promise of very much usefulness. J. B. H.

Cincinnati College of Medicine and Surgery.—The commencement exercises of the thirty-fifth course of lectures of the Cincinnati College of Medicine and Surgery took place in the College Building, February 16th, at which the following programme was observed:

Address—By the Rev. L. D. McCabe, D. D;, Professor of Philosophy, and acting President of the University at Delaware, Ohio.

Conferring of Degrees—By the President of the Board of Trustees, the Rev. F. S. Hoyt, D. D.

Valedictory Address to the Graduating Class—By Prof. A. J. Miles, M D.

The graduating class is composed as follows:

L. F. Crawford, Kansas; J. L. Caldwell, Ohio; J. A. Davis, Kentucky; A. A. Freyman, Ohio; L. E. Green, New York; L. L. Gregory, Kentucky; J. A. Glasgow, Ohio; Geo. N. Hutcheson, Texas; T. M. Jackson, Pennsylvania; M. Kimball, Ohio; W. L. King, England; C. Lytle, Kentucky; W. A. McChesney, Pennsylvania; E. S. Meals, Pennsylvania; J. T. Miles, Ohio; C. A. Lee Reed, Ohio; N. P. Stafford, Kentucky; J. E. Swallow, Indiana; J. H. Tomlinson, Ohio; N. J. Wittenmeyer, Ohio; J. H. Willeford, Georgia; John Ward, England.

J. S. R. Hazzard, M. D., Ohio, Ad Eundem Degree.—*Gazette.*

Dawson Prize Contest at Good Samaritan Hospital.—Yesterday afternoon the medical students, members of the second course, numbering between two and three hundred, met at the Good Samaritan Hospital to witness the contest in drawing, dissecting, and bandaging for prizes offered by Prof. W. W. Dawson, M. D.

On bandaging, the judges selected were Dr. J. L. Caldwell, a member of the Constitutional Convention from Pike County; Dr. D. H. Jessup, of Covington, and Drs. H. M. Hittner, C. S. Muscroft, and F. Brewing, of Cincinnati.

On drawing, the judges were Dr. T. N. Wise, of Covington; Dr. W. H. Phillips, member of Constitutional Convention from Hardin County, and Drs. F. C. Schunck, T. C. Minor, and Wm. Judkins, of Cincinnati.

On dissecting, the judges were Dr. Robert Thornton, of Newport; Dr. H. A. Langdon, of Columbia; Dr. A. H. Tyler, member of Constitutional Convention from Henry County, and Dr. G. W. Hill, member of Constitutional Convention from Ashland County, and Dr. A. C. Kemper, of Cincinnati.

In drawing there were four competitors, and James Averdick, of Oldenburg, Ind., was the lucky one, receiving as a prize a handsome case filled with surgical instruments. In choice words Dr. Phillips made the presentation speech, and in receiving the prize the young Dr. Averdick made a modest reply.

There were but two competitors in the contest for a prize in dissecting. J. Watson, of Cincinnati, was pronounced by Dr. Kemper and committee, the young man just a little more successful than his brother competitor, H. C. Clark. His prize was like the one preceding—a case and instruments.

In the contest of bandaging, there were ten competitors, and by Dr. Muscroft, and the committee of which he was chairman, B. F. Laird, of Covington, was pronounced the best, and he, too, received a case and instruments.—*Cincinnati Gazette.*

Chicago Medical Journal.—We wish to make amends honorable to our neighbor, in giving him due credit for an article republished from his pages, in the January number of the LANCET AND OBSERVER, on "The Premonitory Symptoms of Insanity," by Henry J. Bigelow, of Boston, Mass. The error occurred through an unintentional oversight of the editor. We desire to do justice to all.

To Contributors and Correspondents.—We have received a number of interesting articles for publication, which, for want of room, will be retained in our drawer until next month.

We regret to say that, among others, a criticism on the management of Longview Asylum is unavoidably crowded out of this number.

Sponge-Tents (*The British Medical Journal*, November 29, 1873). —Mr. Lawson Tait believes that by soaking sponge-tents in oil of cloves they will be made more agreeable to the patients, and at the same time there will be much less risk of their causing septicæmia and peritonitis.

Headache.—Dr. C. C. Vanderbeck recommends the use of ergot in headache; thirty drops of the tincture every half-hour until relief is obtained. He regards it as a very useful remedy, though not a specific.—*Boston Medical and Surgical Journal.*

Belladonna Plasters in Vomiting.—The *Medical Times and Gazette*, October 11, 1873, states that, at a recent meeting of the Paris Therapeutical Society, Dr. Guéneau de Mussy read a communication on the good effect of belladonna plaster in the symptom of vomiting, whatever the nature of this may be. Bretonneau strongly recommended belladonna in the obstinate vomiting of pregnancy. He prescribed frictions of the extract diluted with water, which was rubbed into the epigastrium during several minutes two or three times a day. In many instances, this treatment relieved the vomiting when all other means had failed. For more than twenty-five years, Dr. Guéneau de Mussy has extended Bretonneau's treatment to all descriptions of vomiting, whatever the cause may be; but he has found that a plaster is a better excipient of the extract, allowing of its continuous application being conveniently made. It consists of a diachylon plaster and theriac plaster, of each two parts, and extract of belladonna one part, the plaster being twelve centimetres in diameter. It may remain applied to the epigastrium twelve or fifteen days without being removed. It had succeeded in a very great number of cases, either in entirely relieving vomiting or greatly mitigating it. Dr. G. de Mussy entertains great hopes of the benefit to be derived in the use of the belladonna plaster as a prophylactic and curative in sea-sickness.

Obituary.

DR. HENRY MILLER.

Memorial Resolutions passed by the Medical Faculties and Physicians of Louisville—The Last Rites to a Great Man.

The recent difficulties under which we have labored have prevented the proper notice of the universal respect paid by the physicians of Louisville to the memory of the late Dr. Henry Miller. It is not befitting that the death of a man who has so enriched the literature of his profession, who has served so faithfully the interests of suffering humanity, and who has wrought such honor to the profession of medicine, not only of this city but of the country—whose reputation extends even to the Old World—should be passed without giving it the sad prominence which the event deserves. Dr. Miller might be considered to have inaugurated a new departure in one branch of his profession—the subject of obstetrics—and his works on that subject are justly recognized as standard on both sides of the Atlantic. Probably no medical writer was better known than he thirty years ago, and his successors in the department of medical literature to which he devoted himself owe perhaps most of their success to the plan of thought and practice which he marked out.

For thirty years he served as one of that great corps of medical instructors who made the old University of Louisville so illustrious, and to his reputation the Louisville Medical College, to which in later years he attached himself, is greatly indebted.

His funeral services Tuesday morning were attended by a great concourse of friends. The two medical colleges, professors and students, attended in a body, and all the physicians of Louisville assembled to pay their last testimony to the memory of the illustrious dead. The congregation embraced also the hundreds of friends of the deceased, and the funeral cortege was large, far beyond the ordinary.

The following are the resolutions adopted by the two colleges, by the physicians of Louisville, and by the class of the Louisville Medical College:

THE FACULTY OF THE LOUISVILLE MEDICAL COLLEGE.

At a meeting of this faculty on the 9th inst., the following preamble and resolutions were unanimously adopted:

WHEREAS, It has pleased Almighty God to remove from the field of his earthly labors, our distinguished friend and colleague, the late Professor Henry Miller; and

WHEREAS, It is the duty of all men to take proper public as well as private action in honor of their distinguished dead:

Resolved, That we, the undersigned members of the Louisville Medical College Faculty, have heard with pain of the death of our distinguished associate, who, for so many years, has labored with us in the founding of this institution, of which faculty during this entire period he has been the honored president.

Resolved, That we bear cheerful testimony to the eminent worth of the deceased in all of the varied relations of his past life, as a citizen of unblemished character, as a physician of deserved and thoroughly recognized distinction, as a teacher of uniform fidelity and efficiency and as an author of well-earned and wide-spread reputation.

Resolved, That we attend the funeral obsequies in a body, accepting the invitation of his family to act as pall-bearers on this sad occasion.

Resolved, That the president of the board of trustees is invited to deliver, in memory of our late president of the faculty, a memorial address on the evening of the approaching commencement exercises of this college.

Resolved, That we tender our sincere sympathy to the family of the deceased; that a copy of these resolutions be sent to them; that they be recorded in the minutes of this institution, and that they be sent for publication to the daily press of this city, and to the medical journals of the state.

Henry M. Bullitt, M. D., Professor of the Institutes of Medicine and Hygiene.

E. S. Gaillard, M. D., Professor of the Principles and Practice of Medicine.

John A. Octerlony, M. D., Professor of Materia Medica, Therapeutics, and Clinical Medicines.

John Goodman, M. D., Professor of Obstetrics.

J. A. Ireland, M. D., Professor of Diseases of Women and Children.

J. M. Keller, M. D., Professor of Principles and Practice of Surgery.

J. W. Maxwell, M. D., Professor of Chemistry.

C. W. Kelly, M. D., Professor of Anatomy.

J. M. Holloway, M. D., Professor of Clinical Surgery and Physiology.

E. S. Gaillard, Dean.

THE CLASS OF THE LOUISVILLE MEDICAL COLLEGE.

The following resolutions were adopted by the class of the Louisville Medical College in reference to the death of Professor Henry Miller:

WHEREAS, It has pleased the Great Physician, in his infinite wisdom, to remove from his useful labors among us our venerable and beloved teacher, Professor Henry Miller, who has so long and so ably filled the chair assigned him in our college; and whereas, the Alumni of this college, and all others with which he has ever been connected, will learn with deep regret the death of this distinguished teacher and physician; therefore be it

Resolved, That in his death the college has lost one of its brightest ornaments, the profession a sincere and devoted medical philosopher, and the world a great and good man.

Resolved, That we, the students of the Louisville Medical College, appreciating as we do our great loss, unite with the faculty our feelings of sincere regret.

Resolved, That we tender to the family of Professor Miller our heartfelt sympathy, believing that their and our loss has been his gain.

Resolved, That a copy of these resolutions be sent to the family, and also to the daily press for publication.

T. W. TARLETON,
LUTHER B. CREATH,
W. T. CHANDLER,
H. R. DUPUY,
R. S. SEELY, *Chairman.*
WM. L. HUDSON, *Secretary.*
} *Committee.*

THE FACULTY OF THE UNIVERSITY OF LOUISVILLE.

At a meeting of the faculty of the Medical Department of the University of Louisville, held upon the evening of February 9th, the following action was taken in regard to the death of Professor Henry Miller:

WHEREAS, We have heard of the death of Professor Henry Miller, who was among the founders of the Medical Department of the University of Louisville; and who for more than thirty years (from 1837 to 1868) filled the chair of obstetrics in this institution; whose name is affixed to hundreds of the diplomas under which the graduates are practicing; whose earnest labors in the cause of medical instruction; whose researches in medical science, and admirable treatises won him a place in the foremost rank of medical teachers, practitioners, and writers of his time, and especially made his fame as an obstetrician world-wide; therefore,

Resolved, That, in the death of Professor Miller, not only the profession of this city, but that of the whole country has met with an inestimable loss.

Resolved, That we tender to his family our sympathies in their bereavement.

Resolved, That we attend his funeral in a body with the medical class.

Resolved, That these resolutions be spread upon our minutes, and be published in the daily papers.

JOHN E. CROWE,
LUNSFORD P. YANDELL, JR. } *Committee.*
R. O. COWLING.

THE PHYSICIANS OF LOUISVILLE.

At a meeting of the physicians of Louisville, held in the school building, corner Center and Walnut streets, Dr. R. C. Hewett was called to the chair.

Dr. J. J. Speed moved the appointment of a committee to draft resolutions upon the death of Professor Miller, which motion was unanimously adopted, when the following gentlemen were appointed:

Dr. E. S. Gaillard,
Dr. D. Cummins,
Dr. E. D. Force,
Dr. B. M. Wible,
Dr. U. E. Ewing,
Dr. John Crowe,
Dr. Lewis Rogers,
Dr. J. J. Speed,
Dr. Samuel Brandeis,
Dr. H. Bullitt,
Dr. R. C. Holland.

The chairman reported the following resolutions, which were unanimously adopted:

When, in the Providence of God, distinguished men are removed by death from the scenes of their earthly labors, it is the privilege of their associates and the duty of their friends to offer public testimony in their honor, and pay just tribute to their memory. Professor Henry Miller, of this city, having, after a few brief months of illness, been relieved of his sufferings by death, we, the physicians of Louisville, on this sad occasion, do unanimously

Resolve, That we have heard of the death of our distinguished brother with sincere sorrow.

Resolved, That it is our pleasure to testify to his spotless character as a citizen, his great and deserved reputation as a practitioner; his uniformly honorable career as a teacher, his eminent success as an author, his unblemished record in his relations with his brethren; to the entire confidence inspired by him among the sick intrusted to his care; to the valuable services rendered by him to the many medical societies which he has fostered and instructed; to his admirable observance of all professional rules and requirements, as the result of which he signally secured dignity and respect for that profession which he so eminently adorned.

Resolved, That we tender to his family our sincere sympathy; that a copy of these resolutions be sent to them; to the daily press of this city; to the medical journals of the state; to all of the medical associations, domestic and foreign, of which he was either a regular or honorary member.

Resolved, That we will attend his funeral in a body, and unite with his very many bereaved friends in performing the last sad obsequies in behalf of one whose memory his city, his state, his country, and his profession will ever cherish with pride and admiration.

The meeting then adjourned.

DR. J. A. LARRABEE, *Secretary*.

—*Louisville Courier-Journal.*

Wanted.—By the Editor, the following numbers of the LANCET AND OBSERVER to complete a file: December, 1869; January and March, 1871, and January, 1872. Twenty-five cents apiece will be paid for the above copies.

THE CINCINNATI

LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.

VOL. XVII.—APRIL, 1874—No. 4.

Original Communications.

Art. I.—Dislocations of the Shoulder, and their Reduction by Manipulation.

By J. W. HAMILTON, M. D., Professor of Surgery in Starling Medical College, Columbus, Ohio.

A number of years ago I met with several cases of dislocation of the hip that were reduced with great facility by manipulation, after the method of Reid. As to the force used and the suffering caused, these cases were in striking contrast with several of the shoulder that I have encountered. This led to the study of the cadaver, with a view to ascertain the forces and obstacles opposing reduction, in dislocations of the shoulder, and the best methods of obviating or overcoming them. The conclusion reached is unfavorable to prevailing methods.

Richard Wiseman, "Serjeant Chirurgeon to King Charles II," published the sixth edition of his "Chirurgical Treatises" in the year 1734, or one hundred and thirty-nine years ago. It is difficult to read his description of the methods prevailing at that time, without a sense of the ludicrous. "The method by the hand," as he describes it, is as follows:

"You are to make choice of a proper lusty fellow, on whose shoulder you must hang the patient by the luxated arm, bringing his hand over to the fellow's breast. If the weight of the patient is not sufficient to make the extension, some other body may hang upon him, or pull him by the legs downward."

His "method by the ladder" is thus described:

"The way of extension by the ladder is that the patient climb up three or four steps of it, and put his lame arm over one of the staves, placing it between his side and the head of the humerus, and that a strong fellow take hold of that arm, and pull it forcibly down backward, while the patient hangeth by it."

And yet, either in a scientific or humane view of these methods, there is well nigh as much to commend them, as our own chosen and favorite ones with the heel or knee in the axilla. For years I have believed and taught that these methods were simply barbarous, and that there is rarely a necessity for practicing them.

I do not propose to enter into the question whether or to what extent the capsular ligament, or other structure, hinders reduction. I am satisfied with announcing the conviction, prevalent among authors and teachers, that, ordinarily, the chief resistance is muscular; and that that method which reduces this to a minimum will, as a rule, be found to be the easiest and best one. So far as the capsular ligament is concerned, I wish merely to remind the reader that it is ruptured; that the head of the humerus has passed out through this rupture; that the opening is accordingly supposed to be large enough to permit it to readily pass back into it.

Let us now direct attention to the cadaver, and to the muscular connections and relations of the parts involved.

Remove the integument and superficial fascia, and separate the bellies of the muscles about the scapula, shoulder, and vicinal parts of the thorax, leaving their origins and insertions undisturbed. These are assumed to be the forces with which, ordinarily, the surgeon is called upon to contend, in reducing a dislocation. Considered as a single mass, it needs neither demonstration nor argument to make it clear that in certain relations of the humerus and scapula, and in certain relations of the humerus clavicle and thorax, this mass as a whole is now in a greater, now in a less degree of tension. It is furthermore safe to assume that, in a state of dislocation, the positions or relations of those several parts, which are attended with greatest tension, are least favorable for reduction, and those in which the mass is least tense, are most favorable for it.

Careful and repeated consideration of the various positions and relations of the different parts entering into the problem, has suggested the following:

Let the cadaver lie flat on its posterior aspect; carry the arm horizontally from the body, first outward, then upward, till, with the axis of the body projected upward, it makes an angle of forty-five degrees; flex the forearm to a right angle with the arm, and rotate inward.

Now let us study the condition of the muscles:

This elevated position of the arm causes perfect relaxation of the deltoid, supra-spinatus, infra-spinatus, and the clavicular portion of the pectoralis major. Flexing the arm relaxes the long head of the biceps. Rotating inward relaxes the pectoralis major, latissimus dorsi, teres-major, and sub-scapularis. If this movement does not exceed about one-fourth of a circle, or ninety degrees, it will leave the opponents of this group, consisting of the supra-spinatus, the infra-spinatus, and teres-minor, in a state of relaxation. In this position accordingly, supposing the head of the humerus to be dislocated downward, a very slight tractile force, in the direction of the axis of the humerus in its present position, will carry the head of the humerus in that direction, or directly toward the glenoid cavity. Or slight traction being maintained, as above, a very slight pressure on the tip of the acromion will suffice to carry the glenoid surface downward toward the head of the humerus. Or, again, the parts being steadied, as above, a little pressure on the head of the humerus is all that is required to carry it to the glenoid surface. Or, finally, if in this position of the arm, and this relation of the parts, traction—pressure on the tip of the acromion, and pressure on the head of the humerus—be continued, movement of the surfaces toward each other is accomplished with great facility, for the simple reason that, so far as the muscles are concerned, there is no opposing force. But increasing the relation, say to one-third of a circle, or one hundred and twenty degrees, we still further relax the pectoralis major and its associated muscles. In doing so, however, we increase the tension of the opposing group, consisting of the supra-spinatus, infra-spinatus, and teres-minor. These are short and rather strong muscles inserted into the greater tuberosity of the humerus, as near as possible to its articular surface. The axis, of the direction of their action, is, as near as possible, toward the glenoid cavity. Furthermore, in the above degree of rotation, whilst the point of insertion of this group is carried outward to a maximum, it follows, as a physical necessity, that the head of the humerus is by this motion carried between this point of insertion, as a pivotal point, and the glenoid cavity. When it is borne in mind how short these muscles are, and that the head of the humerus is about one and one-half inches in diameter, it would seem as if this rotation outward must almost of necessity bring the articular surfaces together, provided it is preceded by such slight attraction upward as may be necessary to bring the head of the humerus somewhere near opposite to the glenoid cavity.

We must not lose sight of the fact, however, that carrying the arm up to the position described, makes four muscles tense, viz., the triceps extensor, teres-major, great pectoral, and latissimus. One of these, the triceps extensor, is affected so little that further mention is not called for. The other three are all relaxed by the rotation described. Furthermore, a little tension of the teres-major tends to tilt the lower angle of the scapula outward, and in less degree, its outer angle including the glenoid cavity inward or toward the displaced head of the humerus. Additionally, so far as the other two muscles, the great pectoral and latissimus, are concerned, it is to be borne in mind that neither of these is connected with the scapula. They are long masses of muscle, subject to very varying conditions of length and tension, and passing from the walls of the chest to the humerus. In movements impressed upon the scapula, they have no direct agency, and can interpose no direct obstacle. They can only hinder reduction, by holding the head of the humerus so as to prevent it from being drawn upward, and so near the median line of the body as not to permit the scapula to move freely. It is believed, however, that, notwithstanding their agency is rather indirect than direct, they are, in the method recommended, the most common and the most serious obstacle to reduction; that they are, in fact, the only unequivocal source of muscular resistance.

But in surgery, as in medicine, theory alone, however plausible, is of but little value. Experience and observation, after all, are the homely arbiters, that must sit in judgment upon, and determine the value of, whatever practice.

Let me now attempt, once for all, to give the reader a clear idea of the method, if it is worthy of being called a method, which I practice.

We will suppose the upper part of the patient's body stripped; that he lies flat on his back, on a common table, and that his right shoulder is so dislocated that the head of the humerus lies in the axilla, beneath the coronoid process, or beneath the clavicle.

To reduce, proceed as follows:

Carry the right or injured arm from the side on the table, first, till, with the body, it makes a right angle; thence still farther, till, with the axis of the body projected upward, it makes an angle of forty-five degrees. At this stage flex the forearm to a right angle with the arm. In a state of medium rotation, the forearm will, at this stage, be in a direction perpendicular to the table. Keeping the forearm in this state of flexion, and for the present the arm in this state of rotation, let the member be grasped by an assistant. If the pectoral and latissimus muscles are found to be tense, wait and divert the patient's mind for a few minutes, until they become relaxed.

Now, let the surgeon take his position at the end of the table, between the patient's arm and head. He will now be able to place the tips of the two thumbs on the tip of the acromion process, and the tips of all the fingers on the displaced head of the humerus. Everything being thus made ready, direct the assistant to pull steadily, but slightly. At the same time the surgeon presses in opposite directions upon the tip of the acromion, and the head of the humerus, or, in other words, gently presses them toward each other. With the most insignificant expenditure of force the bones will probably fall into position almost instantly. If they do not, rotate the arm, so that the forearm will be carried from a perpendicular inward to an angle of forty-five degrees more or less, and then repeat the movement. The rotation in the same direction may be still further increased if there is still resistance; or this failing, rotation outward may be tried.

An indispensable prerequisite to success is a relaxed and yielding condition of the pectoralis major and latissimus dorsi.

And now for the teachings of experience.

CASE I.—*Sub-glenoid dislocation.* January 30, 1863. Visited Mrs. H., a large, healthy Irish woman, aged 62, at her home, in Worthington, Ohio. Patient was strong and well preserved. Had been accustomed to hard labor all through life. Eighteen hours previous to my arrival, a heavy fall inflicted a severe injury about the left shoulder-joint. Found a sub-glenoid dislocation, with much swelling and great pain. Assisted by Dr. S., her family physician, I proceeded to make a reduction with the heel in the axilla. A sheet was attached to the lower part of the humerus by the clove hitch, and tied over the shoulder, while the two hands grasped the patient's wrist. Seated on the edge of the bed, by the side of the patient, with the heel in position, three persistent and powerful, but perfectly futile tractile efforts were made, without any perceptible effect. It was evident that I was encountering the resistance of the principal muscles about the articulation, and that they were too powerful for me. This method was accordingly abandoned, and the foregoing adopted.

The assistant exerting a slight force, certainly not equal to more than ten or twelve pounds, I found the bones perfectly within my control, and at once slipped them into their normal relation. The patient was slightly under the influence of chloroform.

CASE II.—*Sub-glenoid dislocation.* Omitting cases in which anesthesia was invoked, I was anxious to make an attempt without it. The first case, in which it was thus tested, was that of Mr. S., of Truro township, Franklin county, August 23, 1863. Mr. S. was a laborious farmer, of 160 pounds weight, in perfect general health, and possessed of a powerful muscular system. In falling from a wagon, in a manner which he could not explain, the head of the humerus was forced into the axilla. Saw him a few hours after the injury. As he was suffering greatly, he was clamorous for the use of chloroform. He was put in the position described. A napkin with a few drops of chloroform was laid over his mouth, at the instant manipulation was begun. By the time he had made the third or fourth inspiration, with the most trifling expenditure of force, and before any manifest effect was produced by the anesthetic, the head of the humerus slipped into the glenoid cavity. My only assistant was a female member of the family.

CASE III.—*Sub-glenoid dislocation.* December 25, 1863. Patient, C. E., a saddler, of Franklinton, aged 25, weighed 130 pounds. Had his right humerus driven into the axilla by a kick, received in a fight. Saw him within an hour. Laid him on the floor, and put the arm in the position, and used manipulation, as above described, without chloroform. With the most trifling expenditure of force the dislocation was reduced in about ten seconds. Had no professional assistance.

CASE IV.—*Sub-clavicular dislocation.* February 1, 1865. Patient a farmer, aged 24, of good muscular development. Was injured by being thrown from a sleigh. The head of the left humerus was well forward, beneath the clavicle. He was brought to my clinic at Starling Medical College, by Dr. S., of Columbus, after persistent and exhausting efforts at reduction, by the usual methods.

Ten hours after the accident he was put in position on the operating table, and the left arm was intrusted to Dr. S. As I could not reach the tip of the acromion, and the head of the bone in the manner described above, on account of their distance apart, I put a hand on each, and directed the doctor to pull, when our work was almost instantly accomplished. Anesthesia was not used.

The facility with which these movements are made, will be better appreciated by careful observation of the following cases, in neither of which was anesthesia employed :

CASE V.—*Sub-glenoid dislocation of left shoulder.* Patient, Mr. R., of Franklinton, aged 64, in some way not recorded, was injured July 4, 1864. Saw him in the night. His suffering was such that his cries were heard a long distance. Putting the arm in position, it was intrusted to a non-professional assistant. Giving the usual directions to the assistant, the head of the humerus was slipped into its normal position in about thirty seconds. Now observe : Keeping the arm in the same position, by a simple inversion of the manipulatory movement, *I twice reproduced the dislocation, and reduced it as often, without the knowledge of either patient or assistant. and in about the time it takes deliberately to rotate the hand from the prone to the supine position, or the contrary.*

CASE VI.—*Sub-glenoid dislocation of the left humerus.* February 9, 1866. Patient, S., a healthy, vigorous Irishman, aged 42, recently discharged from a three years' service in the army. Was put upon the operating table at my clinic in Starling Medical College. The arm having been placed in the usual position, the pectoralis major and latissimus dorsi were found to be tense. Delayed a few minutes till this condition subsided. The usual movement now being made, it was instantaneously successful. Reversing the movement, the dislocation, with its characteristic deformity, was *twice instantly reproduced, and relieved three times, without the slightest manifestation of suffering by the patient, and with a less expendi-*

ture of force than it required to pull on an easy-fitting and well-worn boot.

CASE VII.—*Sub-glenoid dislocation of the left shoulder of* 29 *days.* The patient, Mr. E. D. C., was a farmer, of good muscular development, aged 23 years, a resident of Harlem township, Delaware county, Ohio. Patient was brought to my office, June 30, 1863. Sustained an injury on the first day of the same month, by which the head of the humerus was thrown into the axilla. Present—Drs. Guerin and Bickett. Placing the patient under the influence of chloroform, reduction was almost instantly accomplished, in the manner described.

CASE VIII.—*Sub-glenoid dislocation of the right shoulder of* 24 *days' standing.* Saw Mrs. F., of Columbus, July 5, 1870. On the 12th day of June preceding she fell down a cellar-way, striking the right shoulder against a buttress, and dislocating it. Patient was exceedingly fat. Dr S., the family physician, was called, and made frequent attempts at reduction, without success. Gave no chloroform. Reduced by manipulation in about two minutes.

The principal tangible obstacle to reduction by manipulation, that I have been able to detect, is a rigid condition of the pectoralis major, with or without a corresponding condition of the latissimus dorsi. When the arm is put in position, the lower margin of the former of these muscles will often be found to be firm and hard. Keeping the arm still, and diverting the mind of the patient for a moment or two, in most cases, it will very soon become relaxed, when the effort will almost certainly be successful. Till it does relax, success will probably not be attained without a good deal of traction. In a single case only I was obliged to give chloroform to relax it.

I believe, furthermore, that if slight effort does not effect reduction, it is not best to resort to great force. I have done so a few times. I do not recollect ever to have attained success, when in the act of exerting such force. After having resorted to it, and failed, success has come as the result of slight effort, and in some cases when I was least expecting it.

The secret of success is found in the removal of the ordinary obstacles to its accomplishment (*i. e.*, muscular resistance), by the relation which the bones involved, are made to assume to each other. There being little or no tension, as to the muscles connecting the humerus and scapula, motion is impressed upon either with great facility. A little motion of each, toward a common center, is al that is necessary to carry both to a common center, or, in other words, to effect reduction.

For a little more than eleven years I have taught and practiced this method almost exclusively. During the years 1863 and 1864, I made careful record of twelve cases. As well as I can ascertain, I have subjected it to trial at about the same rate per annum for the whole eleven years, making about sixty cases in all. Probably half the cases had been unsuccessfully tested by the ordinary methods before they came under my care. I can recall but four in which there was either delay or difficulty worth naming. In all these four the ordinary methods were thoroughly tested without success. In three of them, success was finally attained by manipulation. The fourth, after everything else had failed, finally yielded to the pulleys.

I ask for the method described, the candid scrutiny of the profession.

Art. II.—Case of Compound and Comminuted Fracture of the Femur, treated with Dr. Woods' Hammock Splint.

Reported by J. W. SOUTHWORTH, M. D., Toledo, Ohio.

On April 26, 1873, Mr. S. K., a Dane, aged 22 years, while at work on a grain-elevator, fell fifty-six feet into one of the bins, alighting on the inclined plane at the bottom.

His almost lifeless form was raised, by means of tackle and ropes, up to the scaffolding from which he had fallen, and then lowered to the ground by the same means. His watch had stopped at a quarter to ten o'clock.

Dr. W. W. Jones, of this city, was summoned to attend him, and found his injuries to consist of a compound comminuted fracture of the right femur, at its middle third, complicated with Colle's fracture of left forearm, and a compound fracture of right humerus through the base of the condyles.

He proceeded to dress the broken arms, with but little hopes of the patient's ultimate recovery. But wishing to give him the best possible chance to survive these truly formidable injuries with as useful limbs as the nature of the case would admit, he sent for Dr.

Woods to bring one of his newly devised hammock splints, and assist in applying it to the unfortunate patient, who was now, at eleven o'clock A. M., somewhat recovered from an almost mortal shock.

The efficient means of constant extension, the perfect control of the foot, the absence of any cumbersome bandages, the avoidance of any occasion for redressings or readjustment of fractured bones, afforded by this apparatus; also the ease of access to the wound, the complete suspension of the limb, and the entire comfort of the patient during treatment, were advantages claimed to be possessed by this splint above all others in use; nor was it found wanting in the fulfillment of any of the above-desired indications, to the entire satisfaction of all concerned.

After the splint was applied, the patient was removed to his home and placed on a bed made with a board-bottom, on which a mattress was laid. The inflammatory action was moderated by irrigations of cold water, which, along with the purulent discharge from the wound, had free drainage through the hammock of cloth into a shallow vessel, underneath the limb, without soiling the bedding in the least.

The comminution retarded recovery somewhat, besides which, the helplessness of the patient, on account of the fractured arms, made it necessary to retain the leg in the apparatus for eight weeks and three days. Union was then found to be perfect and firm, with but little callus and only three-fourths of an inch shortening; and last, but not least, there was not the slightest abrasion on any part of the limb.

The slight shortening of the limb I can attest from measurements taken by myself two months subsequently. During the whole course of treatment, the patient never uttered a word of complaint of the ill-adaptation or traction of the dressings—a fact which I cheerfully testify to from personal observations, while the splint was in use.

Taken altogether, this case has impressed me with the firm conviction that many valuable lives can be saved by the use of the hammock splint of Dr. Woods, that would be jeopardized, if not certainly lost, if treated after the usual methods adopted by surgeons; especially will this be likely to occur in hot weather amongst elderly or enfeebled subjects, who have sustained compound fractures from gunshot or other violent causes.

We append the following description of the Hammock Splint, as given by Dr. J. F. Woods in the Buffalo *Medical and Surgical Journal:*

HAMMOCK SPLINT.

This instrument, without the hammock cloth, is exhibited in the accompanying cuts, in which the long outer and short inner splint is substituted by two rods, with a pad on the upper end of the larger. These rods are kept in position by cross rods and uprights, the whole being fastened at all points by clamps and screws, in such manner that the frame-work may be made high or low, wide or narrow, short or long, as desired to suit any size or length of limb, and adapt it to any variation in its size during treatment—*without the removal of any dressing or in the least disturbing the fracture.* In the figure the splint is arranged for the left leg, but, by turning the long rods, end for end, it is arranged for the right leg, and it is so constructed that these rods separate at a ferule in the middle, in such manner that they may be so combined as to be adaptable to a leg of any length.

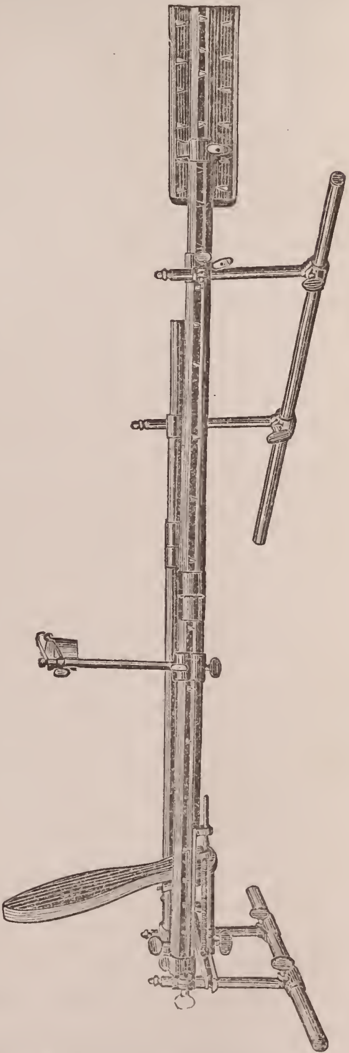

Figure 2 is an enlarged view of the boot extremity. The rods E E are supported by means entirely separate from the rods A. On these rods E E slides a slotted cross-bar, better seen in fig. "1," and to which the rod that supports the foot-piece is attached by a clamp. Coiled wire springs surrounds the rods E E, the power of which, as is easily seen, may be so used as to force the cross-bar and its foot-piece toward the end of the instrument. This spring power is also controlled by bar L, by which it may be increased or lessened at will. The cross-bar being pushed against the spring and the extension fastenings made secure to it, we have a *continuous and controllable* means of extension. The foot being made fast to the foot-piece, the whole may be rotated laterally to any desired point and then secured by the screw in the cross-bar, thus giving entire *command* of the *position of the foot and alignments of the limb.*

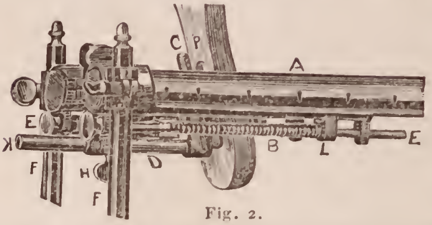

Fig. 2.

To the hooks noticed on the splint rods is attached the hammock cloth. This consists of good unbleached muslin or drilling, and extends from the heel end to the upper end of the body pad, and is in the same manner fastened to the short rod, leaving between them enough cloth to form the " hammock."

Having been attached to the long rod near its edge, it is now cut along the short rod to its perineal end, where a slight sweep inward removes enough to leave the anus uncovered, and then cutting straight out forms the hammock cloth in an L shape, the short end of which goes around the body and fastens to the long rod, holding the body and splint securely together. Fig. 3 shows the dressing applied, H being the short leg of the hammock cloth, starting from and returning to the upper end of the long rod. It will be observed that the leg and thigh, nates and back, are all supported on one piece of cloth that should be without a wrinkle, and that, as a matter of mechanics, *the nates must afford the real basis of counter extension.* The perineal band is applied only as a means of security, and should never be made tight enough to produce discomfort.

The extension is made by any means the surgeon may desire, adhesive plaster being undoubtedly the best. They should be so attached to a piece of tape as to furnish two tails on either side to tie to the ends of the cross-bar.

I have found that these straps, when constructed, as shown in fig. 4, will answer in a superior manner. B B is a firm piece of bandage or tape, and A A two strips of adhesive plaster. Maws is the best cut, and applied around the roller as shown. Of these a pair is required, one being placed on either side of the leg. The adhesive plaster wraps around in a spiral manner, each side clasping the other. That *without strangulation* they hold very firmly, and *no bandage* is required, leaving *leg, ankle, and foot entirely free from bandages*, or any cover whatever. The tails are tied around either end of the cross-bar, and may be long enough so that in case of fracture of the thigh the adhesive plaster need not come down near the malleoli. When it is desired to produce counter extension, as in fracture of the leg, the plasters, constructed in the same manner, may be reversed and the tails tied to the upper end of the splint. The upright, seen in fig. 1, is a movable, irrigating apparatus that may be attached wherever desired, and the fluid applied from a cup by a cotton wicking syphon.

This apparatus, when used in dressing fracture of the leg, can be adjusted to any length desired by the surgeon, and counter extension and extension effectually applied.

It is packed in a small box, only twenty-seven inches long, with which the physician may feel sure that in half an hour he can adjust any fracture of the leg and thigh, leaving his patient not only *comfortable*, but *secure*.

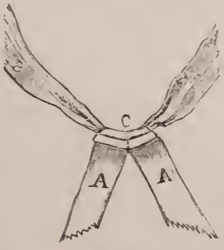

Fig. 4.

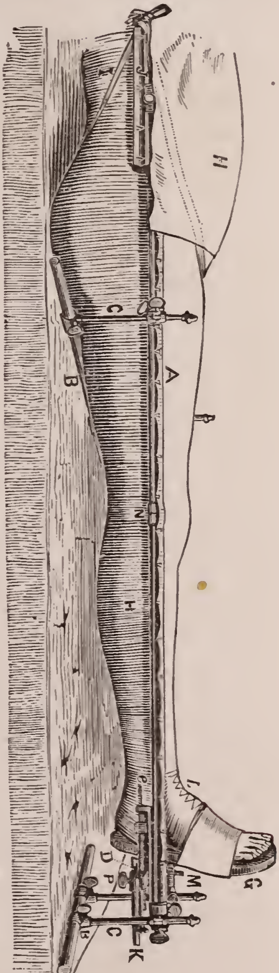

Fig. 3.

This dressing, applied at once, is *permanent*, and should not be removed until *union of bone* has occurred, nor the *ends of the bone moved in redressing*. There being no bandaging, and the whole limb in full view, with a foot-piece entirely under control, *if a surgeon can sight a gun, he ought to make a straight leg*.

The leg is suspended in a single layer of cloth beneath it, and is, therefore, *cool* as it possibly can be made, and affords all the facilities for irrigation or any other desired medication. Its convenience in *compound injuries* and *abscesses* is all that could be desired. *No excoriation or sloughing of the heel* can occur, *nor is the reparative material disturbed* at the after-dressing, while the *extension is continuous and controllable*, and counter extension obtained without discomfort from the nates.

Ample facilities for using the bed-pan are afforded, without disturbing the fracture or erecting a trap through the mattress.

But whatever dressing may be selected, there are several points to be considered, and among which is coolness, cleanliness, means of rectifying defects of position, and *absolute quietude of the fractured extremities.*

Art. III.—Poisoning from a Homœopath's "Dilution" of Aconite.

By SAMUEL THOMPSON, M. D., Toledo, Iowa.

I was hastily called, at 10 o'clock P. M., February 19, to see a little boy, aged 2½ years, son of C. B. B., of this town. On reaching the house, I found the patient in the following condition: He was completely prostrated; his body covered with a clammy perspiration, with scarcely any pulse; profuse catharsis, pupils dilated some, and complaining of hurting in his throat. Those were the symptoms which I observed on first seeing the patient. I would say here, that this child is fully developed, and has always been very healthy. Previous to my being called, he had been a little hoarse, but not considered sick, aside from a slight cold. The mother stated, as she thought not much was the matter with her boy, and being opposed to giving much "strong medicine," she determined to call a homœopath; and she did. He came, and after making a very careful examination (I presume this much), he deposited his effective drug in that very convenient vehicle (one-half glassful), aqua puri, and leaving very intelligent directions (a teaspoonful every few hours), he left; and after the first dose, in one half-hour, all the above symptoms were developed. Now, Mr. Editor, I treated the patient for a poisonous dose of aconite. Do you not think I was correct in my diagnosis? There is no question about the aconite being given. But he says it is the temperament of the child and the "turn" of the disease that developed the above symptoms. I think different. And I further think it our duty to expose their humbugs and fallacies whenever we have an opportunity.

Art. IV.—Of a late Epidemic of Child-bed Fever; together with an Inquiry into the Connection, said to exist, between Puerperal Fever and Erysipelas.

By THOMAS C. MINOR, M. D., Cincinnati, Ohio.

[*Continued.*]

Reflections.—It is evident that these cases of puerperal fever must have been sporadic, and that the coincidence of time between the greatest mortality from erysipelas and puerperal fever has no significance. This is the conclusion we must inevitably arrive at, in the absence of exact histories of the eight cases of fever. We see, however, that in the State of Maine the native-born population suffer most from both diseases, and that winter and spring, with a *low temperature*, are most favorable to the development of both diseases. I can find no record of epidemics of either malady, in the absence of suitable books of reference in relation to the prevailing diseases of Maine.

NEW HAMPSHIRE.—With its eastern borders touching Maine at longitude about 71° west, and its western borders a little over 72° longitude west, New Hampshire stretches its length from the 43d to the 45th parallel of latitude. Most of the state has an altitude of from 800 to 2,000 feet above the sea level, it being embraced in part of the Appalachian range of mountains. According to Blodget, Concord, which is a central town of the state, situated in latitude 43.13°, longitude 71.29°, has an average mean annual temperature of 44.5°. In mean monthly figures the temperature reads as follows: January, 21.2°; February, 21.9°; March, 30.7°; April, 42.4°; May, 54.8°; June, 63.4°; July, 67.1°; August, 65.6°; September, 56.5°; October, 48.4°; November, 37°; December, 25°; thus giving a mean spring temperature of 42.6°; summer, 65.4°; autumn, 47.3°; and winter, 22.7° F.* The fall of rain and melted snow, for the different seasons, at two different points, is as follows:

	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Portsmouth,	9.03 in.	9.21 in.	8.95 in.	8.38 in.	35.57 in.
Hanover,	9.90 "	11.40 "	10.50 "	9.10 "	41 "

The observations at Portsmouth were taken at Fort Constitution, which is situated on a peninsula at the most easterly point of the state; the other observations, at Dartmouth College (Hanover), which is much farther west.

Study of the Table.—It will be seen that 28 persons died of erysipelas in New Hampshire in 1870, out of a total population of 318,300, and that during the same time there were only six deaths from puerperal fever. The deaths from erysipelas among men and women were the same—that is, fourteen males and fourteen females. The decedents were all white and all native born, with a single exception. The deaths from puerperal fever show a mortality among the native born of 50 per cent., the foreign born coming in for the other half. The season of greatest mortality from erysipelas is spring; the season of greatest mortality from puerperal fever would be hard to determine, the spring, autumn, and winter having each the same number of deaths—that is, two. The month of the greatest mortality from erysipelas was March (six cases); the months of the greatest mortality from puerperal fever never exceeded one each.

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* These figures all read Fahrenheit.

Reflections.—No epidemic of puerperal fever could have prevailed in New Hampshire in 1870, and the cases reported must have been sporadic ones. Erysipelas must have carried off only its usual number of victims, for it can be seen that in proportion to population, the mortality was about the same as in Maine. The same may apply to the mortality from puerperal fever. The white native-born population are the victims of erysipelas. As in Maine, New Hampshire has late springs and long winters, and it seems again as though a low mean annual temperature favorized the development of erysipelas. No statistics available in regard to the epidemic or endemic diseases of New Hampshire.

VERMONT.—West of New Hampshire and stretching over about the same parallel of latitude is the State of Vermont, separated from the State of New York by a long chain of small lakes which empty northward into the Richelieu river, which from thence empties its crystal waters into the mighty St. Lawrence. A chain of mountains runs through the central portion of the state. The altitude of most of Vermont above the level of the sea varies from 800 to 2,000 feet, and in the "Green Mountains," from which the state derives its name (*verd*, green; *mont*, mountain), it reaches an elevation of even 4,000 feet at points. At Burlington, which is situated at the extreme western center of the state, and on the eastern shore of Lake Champlain, in latitude 44.24° and longitude 73.11°, the mean annual temperature is about 45°, and the mean monthly temperature, according to Blodget, reads as follows: January, 20.5°; February, 20.4°; March, 31°; April, 47°; May, 55.2°; June, 64.9°; July, 69.9°; August, 68°; September, 59.6°; October, 47.6°; November, 36.1°; December, 23.9°—which gives an annual mean spring temperature of 42.7°; summer, 67.9°; autumn, 47.8°; winter, 21.6°. The fall of rain and melted snow at Fayetteville, Windham county, in the extreme southern portion of the state, is as follows for the different seasons: Spring, 12.78 inches; summer, 13.75 inches; autumn, 16.07 inches; winter, 11.39 inches; making a total for the year of 53.99 inches. At Burlington, according to Guyot,* the annual rain-fall is about 34.15 English inches.

Study of the Table.—Twenty-two persons died of erysipelas in Vermont, in 1870, out of a total population of 330,551, and during the same time there were only five deaths from puerperal fever. The mortality from erysipelas, arranged according to sex, stands thus: Males, 10; females, 12. The decedents were all white, and native born, with the exception of one. The mortality of puerperal fever was wholly among the native born; by native born, be it understood, I mean those born anywhere in the limits of the United States. The season of greatest mortality from erysipelas was in the spring (9); the seasons of greatest mortality from puerperal fever were the summer and autumn, two deaths occurring at each of these epochs. The month of greatest mortality from erysipelas was September (5); that of puerperal fever July (two cases).

Reflections.—Evidently no epidemic of puerperal fever prevailed in the State of Vermont during the year 1870; while the mortality from erysipelas was not very great, and neither was there any epidemic of the latter disease. Vermont has suffered, however, from epidemics of erysipelas, as Dr. Drake† refers to an epidemic of the disease occurring as early as the *winter* of 1826, at Burlington, on the lake shore. The native-born population seem to be the only sufferers from either disease. Like Maine and New Hampshire, Vermont has a *low mean annual temperature*, and most of the state, as is the case with the first states mentioned, has a considerable elevation above the sea level, and therefore, as a matter of course, we must judge that the barometric pressure is usually much less than in the states lying farther south.

MASSACHUSETTS.—With most of its northern border lying in the neighborhood of latitude 42.40°, with most of its southern portion on a line with latitude 42°, and stretching from 70° longitude west, to near longitude 73.20° west, is the State of Massachusetts. The southeastern corner of the state, fringed by numerous islands, of which the largest are Martha's Vineyard and Nantucket, is almost half a degree farther south than the balance of the state. According to Mitchell,* "The western portion of the state is mountainous; a large portion of the remainder is hilly and undulating. In the southeast, the land is level and sandy." A hypsometric sketch of the state shows its eastern part to have an elevation gradually rising from the sea-coast to an altitude of less than 400 feet above the sea level; in the central and western portion of the state the altitude varies from 800 in the center, to as high as 2,000 feet in the extreme western portion of the state. Blodget gives Boston, which lies in latitude 42.20°, longitude 71.3° west, and at an altitude of 50 feet above the sea level, a mean annual temperature of 48.6° F. The mean monthly temperature reads as follows: January, 26.6°; February, 27.8°; March, 35.8°; April, 45.9°; May, 56.6°; June, 65.9°; July, 71.9°; August, 69.2°; September, 61.8°; October, 50.9°; November, 39.7°; December, 30.5°—making a mean spring temperature of 45.9°; summer, 69°; autumn, 50.8°; winter, 28.3°. At Cambridge, not far from Boston, and in the central eastern portion of the state; at New Bedford, in the extreme south of the state, and at Amherst, in the western center of the state, the mean rain-fall at the different seasons of the year is as follows:

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* Guyot's Physical Geography, page 124. New York, 1873.

† Drake. The Principal Diseases of the Interior Valley of North America. Second Series. Philadelphia, 1854.

	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Cambridge,	10.85 in.	11.17	12.57	9.89	44.48
New Bedford,	10.67 in.	9.18	10.76	10.42	41.03
Amherst,	10.23 in.	11.84	11.39	9.70	43.16

Study of the Table.—In 1870, Massachusetts, having a population of 1,457,351 persons, had a mortality of 150 from erysipelas and 51 from puerperal fever. As to sex, the mortality reads: Males, 84; females, 66. Of the decedents, 128 were white and native born, while 22 were of foreign extraction. The foreign decedents were from the following countries:

Sweden, Norway and Denmark	2
Ireland	14
England and Wales	1
Scotland	1
France	1
All others	3
Total	22

Of the decedents from puerperal fever, 34 were white and native born, and 17 were foreigners. The foreign decedents were as follows:

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* Mitchell. A System of Modern Geography. Philadelphia, 1855.

Ireland	11
France	1
All others	5
Total	17

The season of greatest mortality from erysipelas was winter (43); the season of greatest mortality from puerperal fever *was winter* (15); the month of greatest mortality from erysipelas was January (14); the months of greatest mortality from puerperal fever were May and January (May, 7; January, 7).

Reflections.—A study of these figures is a little interesting. It is seen at a glance that the deaths are a little beyond their usual number in proportion to the ratio of population. Let us anticipate a little, for instance, and taking the population of Rhode Island, add it to that of Maine, New Hampshire, and Vermont, and we see that we have a greater total population than has Massachusetts. Now, let us add the mortality of Rhode Island, in order to equalize matters. The calculation would read as follows:

Total population of Maine, New Hampshire, Vermont, and Rhode Island, in the year 1870	1,493,119
Total population in Massachusetts	1,457,351
Deaths in Massachusetts from erysipelas	150
Deaths in the four states named	118
Excess in Massachusetts	32
Deaths in Massachusetts from puerperal fever	51
Deaths in the four states named	20
Excess in Massachusetts	31

Now comes the natural query, why should the four states named, with a greater population than Massachusetts, have so much less a mortality from the same diseases? And is this increased mortality due to a general or a local cause? The solution of this problem is, I think, very simple. Turn back to the table and we shall see It is noticed that the different seasons of the year do not exhibit any marked difference in the mortality from either disease. *Then there could have been no epidemic*, and the increased mortality does not depend on *a general cause.* This leaves us, then, only a local cause; and where shall we look for a local cause in Massachusetts? I think the word *Boston* would probably answer the question; for it is a well-known fact that large and densely populated places favor the development of both diseases, and that hospitals are usually the foci from which the contagious germs emanate, and only need the fertile soil of filth and poverty, furnished by overcrowded cities for their perfect germination. Yet another fact leads me to infer the same thing. At least 15 per cent. of the decedents from erysipelas were foreigners, the majority of them Irish; while 33⅓ per cent. of mortality from puerperal fever was among foreigners, and almost 33⅓ per cent. again of the foreign decedents in turn were Irish. This alone speaks in favor of my proposition; for it is well known that the Irish are a gregarious people, and that all the Atlantic sea-board cities have large Celtic populations—Boston being no exception to the rule. I am not prepared by statistics to defend my assertion in regard to Boston's being the cause of an increased mortality rate in Massachusetts (from erysipelas and puerperal fever), as compared with other New England states, having the same population. My inferences are all drawn from the table alone, be it remembered, and I shall only be too happy to have persons interested in the subject, correct mistakes I may make in regard to any of the "States," if by so doing they can throw light on the subject under investigation. More males than females, it will be noticed, died in Massachusetts in 1870. Massachusetts has a late spring and a long winter season, and a *low mean annual temperature.* The mortality from both erysipelas and puerperal fever was greatest, it will be seen, in the colder months. I have no statistics of epidemics of either disease, in the State of Massachusetts.

RHODE ISLAND.—Lying southwest of Eastern Massachusetts, and in about the same latitude, is the little State of Rhode Island. Most of the state has only a slight elevation above the level of the sea, except in the northwestern part of the state, where the country becomes hilly and reaches an altitude of several hundred feet. At Providence, in the northeastern part of the state, the mean monthly temperature, according to Blodget, reads as follows: January, 27.5°; February, 26.9°; March, 34.7°; April, 44°; May, 55.2°; June, 64.9°; July, 70.6°; August, 68.7°; September, 60.9°; October, 50.3°; November, 39.8°; December, 29.8°. So the temperature, by seasons or quarters, reads thus: Spring, 44.7°; summer, 68.1°; autumn, 50.3°; winter, 28.1°—an annual mean temperature of 47.9°. Providence has an altitude of 150 feet above the sea level, and is in latitude 41.49°, longitude 71.25° west of Greenwich. At Fort Adams,* in the southeast of the state, and on the island of Rhode Island and at the entrance of Narraganset

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* From the compilation in "Army Meteorological Register."

Bay, which "has an open and free exposure, mainly marine," the mean spring temperature is 45.55°; summer, 69.46°; autumn, 53.56°; winter, 30.22°—an annual mean of 49.70°. The rain-fall in Providence (Records of Brown University) is: Spring, 10.45 (inches); summer, 9.66; autumn, 10.50; winter, 9.44; or a total for the year of 40.5 inches. The climate at this point, according to Dr. Satterlee, U. S. A., is most healthy.

Study of the Table.—The mortality "for the census year, ending June 1, 1870," in Rhode Island, from erysipelas, was 21, out of a total population of 217,353; during the same period there was but one death from puerperal fever. In regard to sex, the mortality from erysipelas stands: Males, 9; females, 12. The decedents from both diseases were all white; 15 of the decedents from erysipelas and the only decedent from puerperal fever were native born—the other six decedents from erysipelas were foreigners, five of them natives of Ireland. The season of greatest mortality from erysipelas was in the winter (6); the only patient dying of puerperal fever, died in the summer (month of July). The month of greatest mortality from erysipelas was September (4).

Reflections.—It is very plain that no connection existed here between the 21 cases of erysipelas and the single one of puerperal fever. In proportion to its population, the State of Rhode Island, however, exhibits a larger mortality from erysipelas than any of the other New England states, and at the same time a smaller proportion of deaths from puerperal fever. No epidemic of erysipelas prevailed at any one of the seasons, for the table shows that. Could the increase of erysipelas have been owing to traumatic causes? for Rhode Island is full of cotton-mills, and accidents among operatives are not of unfrequent occurrence. It is seen, again, that all the decedents are white, and most of them native born.*

CONNECTICUT.—Between latitudes 41° and 42°, and its greater portion lying west of longitude west 72° from Greenwich, is the state of "wooden nutmegs." The surface of the country in the State of Connecticut is varied. A hypsometric sketch shows that the eastern and southeastern portion is but slightly elevated above the level of the sea. The land becomes higher in the west of the state, and in the north of the state becomes hilly, near the Massachusetts state line; the altitude above the level of the sea varying from 50 to 800 and even 1,000 feet. At New London, in New London county, and at the entrance of the Thames river, in latitude 41.21°, longitude 72.6°, and 23 feet above the level of the sea, the mean monthly temperature, according to Blodget, reads as follows: January, 29.1°; February, 29.6°; March, 36.1°; April, 46.8°; May, 56.3°; June, 66 1°; July, 71.5°; August, 70.1°; September, 63.3°; October, 53°; November, 42.3°; December, 31.1°; giving an annual mean of 49.6°; or in seasons it would stand thus: Spring, 46.4°; summer, 69.3°; autumn, 52.9°; winter, 29.9°. At Fort Trumbull,* about a mile lower down than New London, "on the right bank of the river Thames," and a little over two miles from Long Island Sound, the rain-fall in seasons reads as follows: Spring, 10.90 inches; summer, 10.65; autumn, 13.16; winter, 10.98; or an average mean annual fall, rain and melted snow, of 45.69 inches.

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*Dr. Parsons, author of a report on the "Medical Topography and Epidemic Diseases of the State of Rhode Island," which may be found in the Transactions of the "American Medical Association" (Vol. XV, p. 205), makes no special mention of erysipelas or puerperal fever.

Study of the Table.—The mortality for the census year 1870, in the State of Connecticut, from erysipelas, was 38, out of a total population of 537,454; during the same time there were 15 deaths from puerperal fever. As regards sex, the decedents from erysipelas read: Males, 20; females, 18. All the decedents from erysipelas, with but one exception, were whites, and all were native born. The decedents from puerperal fever were all white; nine being native born, the other six foreigners. The season of greatest mortality from erysipelas was spring (18); the season of greatest mortality from puerperal fever, spring (7). The months of greatest mortality from erysipelas were March and May (7 each); month of greatest mortality from puerperal fever, May (5).

Reflections.—Some slight connection seems to exist here between the two diseases; that is, they were both most prevalent at about the same season and month. No epidemic seems to be indicated of either disease. The mortality is in about the same proportion to population as in the balance of New England. More decedents were native born than foreign. All the decedents were whites, with but one exception. Almost fifty per cent. of the mortality from both diseases was in the spring.

EN RESUME.—Covering an area of over 74,000 square miles, and with a population of nearly three and a half million souls nestling on its bosom, the portion of the United States known as New

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* Compiled from "Government Reports."

England claims to be the most densely settled section of North America. The surface of all New England, according to Guyot, is very broken and irregular, except along the Atlantic sea-board; the coast lands are flat, and in Southeastern Massachusetts very low and exceedingly sandy. The whole section is interspersed with small running streams and chains of lakes and lakelets, while the higher lands and mountains are covered with pine-forests; the country is charming, and the surgeons at various posts on the North Atlantic coast, and along the northwestern frontier, speak in high terms of the salubrity of the New England climate. The mean annual temperature in the far north (Fort Kent, Maine), is about 37° F.; in the far south (Newport, Rhode Island), 50° F. It varies from these two extremes at various points in the section, as will be seen, if the statements before made, in regard to various meteorological observations at different posts in New England be carefully noted. New England is traversed by the isothermal lines of 40°, 44°, and 48°, as a temperature chart belonging to the Smithsonian Institute, Washington City, prepared by Prof. Joseph Henry,* clearly exhibits. The greatest fall of rain in New England occurs in the summer and autumn months, when the fall of water, measured by English inches, exceeds the annual fall of snow and rain of the spring and winter seasons, Rhode Island perhaps excepted, where at points the winter and spring rain-fall exceeds that of summer and autumn. Being in the far south of New England, and with a higher mean annual temperature than other portions of the section under discussion, may perhaps explain this difference. In this connection, the high mortality rate from erysipelas and the almost total absence from puerperal fever may be noticed as being a little curious. The spring and winter are, then, the coldest and driest seasons in New England. Let us now turn to the study of our table. It will be noticed that the columns are footed up, giving the total mortality from both diseases in all New England, the months in which the deaths occurred, the seasons of greatest mortality; the statement reads from right to left, the same as in the case of the individual "States."

Study of the Table.—The mortality from erysipelas in all New England, according to the census year, 1870, was 306; during the same time there were 86 deaths from puerperal fever, or a total mortality from both diseases of 392. As regards sex, the mortality stands thus: Males, 167; females, 139 (*erysipelas*). The decedents from both diseases *were all whites*, with but one exception, one person of color having died of erysipelas in Connecticut. Of the decedents from erysipelas, 275 were native born, the remainder (31) foreigners; 58 of the decedents from puerperal fever were native born, the remainder (28) were foreigners, mostly Irish. The season of greatest mortality from erysipelas in New England is spring (92); the season of greatest mortality from puerperal fever is spring (28). The month of greatest mortality from erysipelas is April (34); the month of greatest mortality from puerperal fever, May (12).

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* Embodied in Census of 1870.

Reflections.—No epidemic from either disease prevailed in New England during the census year, 1870. The supposition is that all cases of erysipelas and puerperal fever were sporadic. If any local epidemic occurred, it must have been speedily stamped out, for the figures do not show either disease to have been very prevalent in New England at that time; besides, there was not such a great difference in the mortality rate from either disease at any one season. With a foreign population of 648,000, New England lost 59 of them from both diseases. The foreign-born population of New England form almost one-fifth of the whole on a rough calculation; and it is very plain from this fact that foreigners are more exempt from erysipelas in New England than are the native born. On the contrary, in proportion to population, the foreign born suffer more from puerperal fever than do the native born, although the words *lying-in establishments* might possibly force us to reverse this last observation, as it is a well-known fact that the hospitals of large cities are more resorted to by the foreign than the native born, and that the mortality among women confined in hospitals is greater than in private practice. New England has in its greater part an altitude of some hundreds of feet above the level of the sea. The temperature of this section at the time both diseases prevail most is not very high. In April, the month erysipelas prevails the most in New England, the mean monthly temperature in Northern Maine is about 35° F., and gradually increases, of course, as we go south; as in the southern part of Connecticut (New London) we find it to be 46° F. in April.

It is not my intention to dwell on the influence of climate in the development of either disease at this point, but perhaps this subject may be touched on before the article is concluded. The greatest mortality in any one month from puerperal fever was the month succeeding the greatest mortality from erysipelas. It is a little singular that out of a total colored population of 31,705, there should have been but one death from either disease, and that erysipelas. The colored population of New England, as I figure them up from the census tables, and have them arranged according to sex, read as follows: Males, 15,399; females, 16,306. Not a single death occurred from puerperal fever among the female colored population, of whom, I think it is safe to say, a large proportion must be at the child-bearing period of life. And 7,245 colored females live in Massachusetts alone, where the greatest mortality from puerperal fever occurred.

SECTION SECOND.

MIDDLE AND SOUTHERN STATES.

In the midst of one's weary search after information, it is pleasant to find, ever and anon, some article which serves the purpose of a "ready reckoner"—an oasis blooming and bearing fruit (in the shape of facts and statistics), amid deserts barren of references. Such an article we find that of Joseph M. Smith's,* of New York, to be. The geology, mineralogy, flora, fauna, and ethnography of the "great State" of New York are each carefully studied in detail; also, the climatology and meteorology, etc.

Says Smith (page 85), in speaking of the "geography and hydrography" of the state: "The form of the State of New York is nearly triangular; its most southern part, including Long Island, rests on the Atlantic ocean, and gives it a sea-board of about 130 miles. Its northern and western part is bounded throughout nearly its whole extent by the upper waters of the river St. Lawrence, Lake Ontario, Niagara river, and a portion of Lake Erie. Its remaining frontiers, on the north and east, are conterminous with Connecticut, Massachusetts, Vermont, and Canada East, and on the south with New Jersey and Pennsylvania. Its territorial area is about 46,000 square miles, the whole lying between 40° 30′ and 45° of north latitude, and between 71° 50′ and 79° 55′ west longitude." Smith gives numerous tables regarding meteorology; but as the writer had already compiled tables from Blodget for all the different states, for the sake of uniformity of arrangement, we shall quote Blodget, but in addition, however, give one of Smith's most elaborate tables. The mean monthly temperature in various sections of the state, as I have arranged it from Blodget, reads as follows:

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* Report on the Medical Topography and Epidemics of the State of New York. By Joseph M. Smith, M. D. Transactions of the American Medical Association, Vol. XIII, 1860.

Fort Hamilton, New York Harbor—Latitude 40° 37′, longitude 74° 2′, altitude 25 feet above sea level: January, 31.6°; February, 30.9°; March, 38.1°; April, 44.3°; May, 57.8°; June, 67.8°; July, 73.2°; August, 73°; September, 66.6°; October, 55 2°; November, 45.6°; December, 34.3°. Albany, N. Y.—Latitude 42° 31′, longitude 73° 44′, altitude 130 feet above the sea level: Temperature in January, 24.3°; February, 25.4°; March, 35°; April, 47.2°; May, 59.6°; June, 68°; July, 72.1°; August, 70°; September, 61.4°; October, 49.4°; November, 39.2°; December, 28.4°. At Potsdam, St. Lawrence county—Latitude 44° 40′, longitude 73° 44′, altitude 394 feet above the sea level, as follows: January, 18.4°; February, 18.8°; March, 30°; April, 43.7°; May, 55°; June, 63.9°; July, 68.4°; August, 66.7°; September, 57.4°; October, 45°; November, 33.7°; December, 22.1°. At Auburn—Latitude 42° 55′, longitude 76° 28′, altitude 650 feet above the sea level, as follows: January, 24.4°; February, 24.6°; March, 33.5°; April, 45.3°; May, 54.4°; June, 63.5°; July, 69.8°; August, 68.2°; September, 54.4°; October, 48.2°; November, 37.7°; December, 29.5°. Or reading by seasons, or annually, as follows:

	SPRING.	SUMMER.	AUTUMN.	WINTER.	AN. MEAN.
Fort Hamilton,	46.7°	71.3°	55 8°	32.3°	51.5°
Albany,	46.7°	70°	50°	26°	48.2°
Potsdam,	42.9°	66 3°	45.4°	19.8°	43.6°
Auburn,	44.4°	67.2°	48.4°	26.2°	46.8°
Jamaica, L. I.	47.3°	68.9°	51.8°	30.4°	49.6°
West Point,	48.7°	71.3°	53.2°	29.7°	50.7°

The monthly, quarterly, and annual mean temperatures in different sections are here seen at a glance, and the different climates of New York can be noted. The mean quarterly fall of rain and melted snow at different sections of New York reads as follows (in inches):

	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Fort Hamilton,	11.69	11.64	9 93	10.39	43.65
West Point,	12.57	12.43	10.74	10.79	46.53
Albany,	9.79	13.31	10.27	8.30	40.67
Cherry Valley,	9.76	12.16	10.73	8.48	41.13

The following beautifully arranged table, by Dr. Smith, gives a concise view of the mean annual temperature at the various "isothermal meteorological stations" of the state:

ANNUAL MEAN TEMPERATURE.

42°—Bridgewater and Pompey.

43°—Fairfield, Franklin (Malone), Lowville, Ogdensburg, Gouverneur, Oneida Conference St. Lawrence.

44°—Cherry Valley, Liberty, Cortland, Mexico, Hamilton, Johnstown, Oxford, Plattsburg.

45°—Cambridge. Canajobarie, Canandaigua, Monroe, Granville, Palmyra, Schenectady, Springville, Utica.

46°—Amenia, Auburn, Buffalo, Delaware, Gaines, Hartwick, Middlebury, Millville, Rochester, Washington, Madison Barracks, Fort Ontario, Buffalo Barracks.

47°—Farmers' Hall, Hudson, Kinderhook, Lansingburg, Lewistown, Mt. Pleasant, Onondaga, Syracuse, Fort Niagara.

48°—Albany, Clinton, Fredonia, Greenville, Ithica, Montgomery, North Salem, Redhood, Watervliet.

49°—Cayuga, Kingston, Newburg, Union Hall.

50°—Dutchess, Oyster Bay, West Point.

51°—Erasmus Hall, New York Institution for Deaf and Dumb, Forts Hamilton and Columbus (New York Harbor).

Prof. Guyot, according to Smith, divides the state into five physical regions, *i. e.*, the "Southern or Maritime Region," which takes in almost all the state south of the Highlands; "The Eastern Region, or Hudson Valley," extending from the Highlands to Lake Champlain; "The Western Region, or high table-lands between the Hudson Valley and Lake Erie;" fourthly, "The Region of the Great Lakes," which includes all the territory from the eastern part of Lake Erie, the southern shores of Ontario to Lake Oneida; lastly, "the Northern Region," all the country known as the "*Adirondack Region*" (immortalized by Murray), which, extending northward to the Canada line, has Lake Champlain on its east, the Mohawk Valley on the south, and is kissed on its western border by the bright blue waters of Ontario. A hypsometric sketch would show the southern region to be low; the eastern region elevated about 1 to 200 feet; the western region with an elevation of from 1,000 to 2,000 feet; the region of the lakes from 150 to 600 feet, and the northern region from 200 to 1,400, 2,100, and even 5,000 feet above the sea level.

Study of the Table.—The mortality (for the census year 1870) from erysipelas in the State of New York, out of a total population of 4,382,759 persons, was 455; during the same period the mortality from puerperal fever was 235. As regards sex, 253 males and 202 females died of erysipelas. Of the decedents from erysipelas, 355 were whites and native born, 1 unknown, and 99 foreigners. Of the decedents from puerperal fever, 82 were native-born whites and the other 153 were foreigners. The foreign decedents from both diseases I have arranged according to nativity in the following table:

NATIVITY.	ERYSIPELAS.	PUERPERAL FEVER.
Germany	31	57
Sweden, Norway	1	2
Ireland	45	85
England, Wales	14	2
Scotland	4	0
France, Italy	1	2
All others	3	5
Total	99	153

The season of greatest mortality from erysipelas was spring (165); the season of greatest mortality from puerperal fever was spring (89). The month of greatest mortality from erysipelas was March (61); the month of greatest mortality from puerperal fever was March (38).

Reflections.—In proportion to population, the mortality from erysipelas in New York seems to be no greater than in the New England states. The deaths from puerperal fever, however, seem to be in excess. It is noticed that both diseases must have been most prevalent at about the same time, as the season and month of greatest mortality in the two cases were the same. It will be again observed that no colored persons died of either disease, and the colored population of New York at the last census was 52,081, of whom 25,080 were males and 27,001 were females. It will be also noticed how large the mortality from both diseases is among foreigners, and still we become aware on consulting the census why this is.

The State of New York has within its limits 1,138,353 foreigners, or more than one-fifth the total (5,567,229) foreign-born population of the entire "United States;" 566,037 of these foreigners are males and 572,316 females. The total population of New York, in 1870, was 4,382,759; so more than one-quarter or 25 per cent. of the population of New York is foreign born. Now, on a rough calculation of 25 per cent., there was least mortality from erysipelas among the foreign born; on the contrary, the mortality from puerperal fever was almost twice as much among the foreign as compared with the native-born. A like condition of affairs, it will be remembered, existed in New England. New York city is undoubtedly responsible for most of the puerperal fever, for the same reasons we gave in referring to Boston.*

No serious epidemic of either disease could have prevailed in the State of New York, although there may have been a slight outbreak in the spring of both diseases. Smith† says, speaking of epidemic erysipelas, that "such a disease is among the more formidable meteoratious epidemics which periodically visit the State of New York." In 1825, Dr. Fountain described the epidemic as it prevailed in Putnam and Westchester counties (New York city is in Westchester county). Fountain,‡ quoted by Smith, says: "An epidemic commenced about the 1st of February, 1825, and continued in scattering cases even as late as the 1st of August. The number of cases that occurred was not less than 250, and that of the deaths about 30. Compared to *many former epidemics*, it ap-

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* In a "Report on the Mortality of the City of New York," by Cyrus Ramsey, M. D. (Registrar of Records and Statistics), published in the Transactions of the "American Medical Association," Vol. XV, 1864, may be found a full report of all deaths from all diseases for the thirteen years prior to 1864. From these tables we have arranged the following:

Table exhibiting Mortality from Puerperal Fever and Erysipelas from 1851 *to* 1863.

PUERPERAL FEVER.	ERYSIPELAS.	YEAR.
165	205	1851
155	156	1852
98	114	1853
141	147	1854
131	140	1855
130	114	1856
111	139	1857
173	156	1858
168	141	1859
154	107	1860
151	130	1861
115	131	1862
53	124	1863

This table is an interesting study of itself, and is proof positive of what has been asserted, *i. e.*, that the "Great City" is responsible for the heavy mortality from both diseases.

† Ib. 266.

‡ "New York Medical and Physical Journal, Vol. IV, 1825."

pears indeed insignificant, yet it was attended with peculiarities not altogether uninteresting." Just before this epidemic an epizootic, called "the slavers," affected horses. (It was also noticeable that the epizootic was prevalent in this city, Cincinnati, during the last epidemic of puerperal fever, we may remark here in parenthesis.) Quoting Smith again, we will conclude our remarks regarding the State of New York: "As an epidemic erysipelas has occasionally appeared in various other parts of the state, Dr. Sprague informs us that it prevailed in the southern part of Otsego county in the autumn and winter of 1842-43, and that it raged there in two or three towns with fearful mortality," etc. So much for the epidemics of New York; let us now turn to the State of New Jersey.

NEW JERSEY.—Lying directly south of New York and directly east of Pennsylvania, the State of New Jersey stretches its length from about latitude 39° to a little north of 41°; its extreme eastern or Atlantic coast in the neighborhood of longitude 74° west of Greenwich at Sandy Hook, and its western boundaries at points overlapping 75° longitude W. Greenwich; 8,320 square miles are embraced within the limits of the state. According to Mitchell, "the northern part of the state is mountainous, and is a fine grazing country; the middle part is level and well cultivated; the south is low and sandy." A hypsometric sketch of the state shows it to have an elevation above the sea level of from 25 to 1,500 feet. As it has been settled since 1617, some sanitary records of the state must have been kept; but I have been unable to find even a reference to the epidemics of New Jersey among the limited number of works at my command. At Trenton, in the western part of the state, the mean monthly temperature, according to Blodget, reads as follows: January, 30.9°; February, 32.5°; March, 38.8°; April, 50.9°; May, 58.5°; June, 67.7°; July, 72.8°; August, 71.6°; September, 63.4°; October, 51.5°; November, 41.3°; December, 32.6°; or reading by seasons as follows: Spring, 49.4°; summer, 70.7°; autumn, 52.1°; winter, 32°—thus giving a mean annual temperature of 51.1°. Trenton is in latitude 40° 13′ and longitude 74° 45′ W. Greenwich, and has an elevation above the sea level of fifty feet.

[TO BE CONTINUED.]

Art. V.—Injuries of the Eye by penetrating foreign Bodies.

By S. C. AYRES, M. D., Cincinnati, Ohio.

[Concluded from February number.]

CASE VII. C. B., æt. 21. November 29, 1872, patient applied for advice, stating that five days previously his left eye had been injured. He gave the following history: He was holding a chisel, while a companion was striking. Just as he struck, he felt something penetrate his eye. He suffered some pain at first, and by the next day the eye was entirely blind. Present condition: Anterior chamber one-third filled with pus, aqueous turbid; pupil closed, but the eye was not painful. There is a small linear wound in the lower and outer quadrant of the cornea, through which the foreign body probably passed. Instillations of atropine were used and warm fomentations, and under their influence the hypopyon almost completely disappeared.

Dec. 11. Eye has been quite free from pain until within the past two days. The suppurative process is probably extending to the choroid. Immediate enucleation was recommended.

Dec. 12. Eye enucleated by the ordinary method. Sectio oculi: Meridional section of the eye was made. It was found that the foreign body had passed through the corneal wound above mentioned, also through the iris, lens, and vitreous, and had penetrated the sclerotic with sufficient force to remain there. Suppuration was progressing backward from the iris and ciliary body to the choroid, and already the anterior portion of the vitreous was opaque and of a creamy color.

CASE VIII. F. V., æt. 23. Left eye injured three years ago by chip of steel from a hammer. The sight was lost immediately, and he suffered intense pain at the time. The foreign body made a vertical cut through upper and lower lids, and penetrated the sclerotic about 2‴ from the lower and inner sclero-corneal margin. He has had repeated attacks of pain in the eye since the accident, but has had no marked symptoms of sympathetic ophthalmia in the right eye. He has, however, suffered pain when engaged in work which required a stooping posture, and at times the eye is painful if he makes a misstep while walking. Lately, the right eye has become weaker, so that he can not read long at a time without suffering pain. Enucleation of the injured eye was advised, and, with some reluctance, he submitted, declaring at the same time that he did not believe there was any foreign body in it.

May 21, 1873. Eye enucleated.

Sectio Oculi.—Globe somewhat smaller in all its dimensions, and tension increased. Cornea opaque, flattened, and oval in shape, the vertical diameter being considerably shorter than the horizontal. There is a vertical cicatrix about 2‴ in length in the lower and inner quadrant of sclerotic, extending to sclero-corneal margin. A meridional section of the eye was made, and it was found filled with a hard white cheesy substance. The retina was pressed forward into a funnel shape, with its apex at the optic nerve entrance, and its base at the ora serrata. The anterior chamber was completely obliterated, the remains of the atrophied iris being in contact with the cornea.

The foreign body was found lying obliquely across the ciliary body, enveloped in a mass of lymph. It is 3‴ in length and 1‴ in thickness. Lying near the foreign body were two reddish globular masses, of firm consistency, which were probably blood coagula.

CASE IX. H. H., æt. 15, gave the following history of the unfortunate accident, which resulted in almost total blindness: Last February, while in the stable, laid a gun-cap on the hinge of a door, and struck it with a plow-wrench with sufficient force to explode it. A fragment of the cap penetrated the left eye, and sight was lost immediately. There was some irritation of the eye after the accident, but it soon recovered, and, aside from the blindness, he experienced no other inconvenience until about two weeks ago. At that time, while plowing, he was suddenly attacked with dimness of vision in his right eye. It became painful and irritable, and vision rapidly failed, and now (June 16, 1873) he is barely able to count fingers at two feet. The injured eye is tender to pressure, and there is a severe inflammation of the iris and ciliary body, and the pupil is closed with lymph. The chances for recovery of sight, pro and con, were carefully laid before his parents, and, after much hesitation, they decided to allow the injured eye to be enucleated. Their hesitation was owing, perhaps, partly to advice given them by some physician at home, who warned them not to go to the city, for fear some oculist should remove the eye. He was not able to recognize the danger himself, and warned them against doing the very thing which experience teaches is most clearly indicated.

June 17, 1873. Left eye enucleated. Section of the eye was made, and the piece of gun-cap discovered imbedded in a conical-shaped mass of lymph, which extended backward from the cornea and ciliary body to the sclerotic.

The patient was placed in a dark room, and atropine was energetically used in the right eye. Mercury was used hypodermically, and quinia and opium given as his condition required. There was at one time a slight amelioration of the more aggravated symptoms. The pupil dilated moderately, and the photophobia diminished, but it was only for a short time. He suffered but little pain, but the photophobia was very great. The severer symptoms gradually abated, but his vision was not improved. Eight months afterward (February, 1874) he was able to perceive shadows of objects, but could discern nothing distinctly.

CASE X. J. M., æt. 21. Left eye enucleated July 18, 1873, for an injury received November, 1871, by a penetrating splinter of wood. He was sawing with a circular saw, and a fragment from the stick struck the eye, causing instant blindness. He was seen a few hours afterward, and his eye presented the following conditions: There was a horizontal wound 4‴ in length on the inner side of the globe, half in the cornea and half in the sclerotic. There was prolapse of the iris, a portion of it having been torn away by the injury. From the nature of the accident, it was supposed that a large piece of wood had struck the eye and inflicted the wound, and then glanced off. Cold applications were applied, and instillations of atropine used. For several weeks the eye remained very tender. The lens, which had been wounded, was gradually absorbed, and during this time there was severe cyclitis. The iris was drawn into the cicatrix, and that portion immediately opposite put upon the stretch.

He was able, after several months, to resume work again, but he could not do much on account of the pain in his head when he stooped forward or did heavy work. The eye continued to give him more or less trouble until the above date, when he consented to enucleation. Within a few days the eye had become so extremely painful as to be unendurable.

Sectio Oculi.—Globe somewhat reduced in size, and horizontal diameter of cornea very much shortened. The cicatrix has caused a depression of the cornea and sclerotic in that region. The vitreous was disorganized, and retina detached and funnel-shaped.

Corresponding to the cicatrix was a firm mass of lymph, imbedded in which was discovered a small fragment of wood.

CASE XI. G. N., æt. 9, lost his left eye six months ago. He was exploding percussion caps, and a fragment penetrated the eye and lodged near the lower and outer portion of the ciliary body. The eye was lost immediately. He has suffered severely at times since the accident. The cornea is opaque and the eyeball tender to the slightest pressure.

The eye was enucleated without delay, as the other one was threatened with sympathetic inflammation.

A section of the globe showed that there had been suppurative choroiditis. The foreign body was lying near the ciliary body at its lower and outer portion.

CASE XII. J. S., æt. 63. Left eye injured by a small piece of steel from a chisel four weeks ago. It struck the lower and outer quadrant of the cornea, passed through it, and also through the iris, and lodged in the lower and inner margin of the lens. Since receipt of the injury he has suffered more or less pain in the eye all the time. Sharp iritis set in, and posterior synechiæ formed, although atropine was energetically used from the first. The lens is now opaque and swollen, and has caused severe cyclitis. The eyeball is very tender to pressure, and the circumorbital pains are severe enough to require the use of anodynes.

As the eye was hopelessly blind, and was every day becoming more painful, enucleation was advised.

Operation was performed July 30, 1873. There was an unusual amount of hemorrhage afterward, but notwithstanding that he made a rapid recovery.

Section of the globe was made, and the foreign body was found as above stated, imbedded in the lower and inner margin of the lens. The latter was very much swollen and macerated. Up to this time there had been no suppuration of the iris, ciliary body, or choroid, and the vitreous was perfectly transparent.

CASE XIII. J. L., æt. 50. Received an injury of the left eye yesterday, August 15, 1873, in the following manner: He was knocking hoops from a barrel, and a small scale of iron penetrated the left eye. It struck the upper and inner portion of the cornea. In a few hours the eye became very painful, and vision was reduced to mere perception of light. When he applied for advice, about twenty-eight hours after receipt of the injury, there was severe suppurative iritis, with hypopyon. His suffering was such that he required liberal doses of morphia to quiet him. The hopeless condition of the eye was fully explained, and immediate enucleation recommended. To this he would not consent, as he was not prepared to believe that such an apparently slight injury could be so serious. He continued to suffer for three weeks with suppurative irido-choroiditi, and then consented to the operation proposed on the first day.

Sectio Oculi.—Eyeball natural in shape and size; iris agglutinated to capsule of lens; lens opaque and swollen; vitreous changed into a mass of thick yellowish pus; retina detached by effusion of yellowish fluid underneath. It was found that the scale of iron had passed through the cornea and iris, and had lodged in the upper and inner ciliary region.

CASE XIV. A. C., æt. 22. Received an injury of the left eye four months ago, which resulted in immediate loss of sight. A particle of iron-ore penetrated the cornea at its lower and inner quadrant, and caused prolapse of the iris. He has had more or less pain in the eye up to the present time, and the sound eye is becoming affected. There was no cyclitis, but the eye is very irritable. $V=\frac{1}{2}$. He has not been able to work since the accident, on account of the pain in his head occasioned by stooping forward. Eye enucleated without any unusual accident.

Sectio Oculi.—Globe somewhat shrunken; anterior chamber shallow; pupil closed, and iris drawn toward the cicatrix; lens opaque; retina detached, and globe filled with thick purulent fluid. In the region of the ciliary body, downward and outward, was found a mass of tough neoplasm, nearly as firm as cartilage, in which was found imbedded a small piece of iron-ore. Extending backward from this, was a tough, white fibrous band, which was attached to the sclerotic, near the entrance of the optic nerve.

CASE XV. Mr. O. W. G., while bird-shooting, four months ago, received a charge of shot in his face from his companion's gun. As he was only about ten steps distant from the gun at the time, a large number of shot took effect in his face, and one entered the left eye, through the lower and outer quadrant of the globe, at the sclero-corneal junction. The sight was immediately lost. There was probably prolapse of the iris at the time. The eyeball is somewhat flattened, in its lower and outer aspect, by the contraction of the cicatrix. During the last two months, the other eye has given him considerable trouble, and is at present painful. He can read only for a short time, and complains of glimmering and indistinctness. $V=\frac{15}{30}$. The immediate removal of the left eye was advised, as the only means of preventing the loss of the right—to which he readily assented.

Sectio Oculi.—Cornea transparent; iris deficient in the direction of the cicatrix; lens semi-transparent; vitreous liquified. Extending from the ciliary body, where the shot entered, backward, to a point 1‴ outward from the entrance of the optic nerve, was a cord-like band of lymph. Its attachment to the sclerotic was quite firm. It evidently marked the course of the shot through the eye, as it could not be found within the globe. The external appearance of the sclerotic, at the point where the cicatricial band was attached, confirmed the opinion that the shot must have passed through the eyeball and lodged in the orbit. The day after the operation, the vision of the right eye had increased to $\frac{15}{20}$.

In reviewing these cases, we find some points which are not without interest to every practitioner as well as to laymen.

In the fifteen cases reported, seven of the eyes were destroyed by fragments of gun-caps; two by bird-shot; four by fragments of iron; one by a small particle of iron-ore; and one by a splinter of wood. The popular amusement of gunning is thus shown to be very dangerous to vision, as it is responsible for three-fifths of the cases in this series. The other cases can be said to be legitimate, as the injuries were received while engaged in some useful employment. The length of time the foreign bodies remained in the eye varied from one day to twenty-three years; but in two-thirds of the number enucleation was required within nine months from receipt of injury.

The behavior of the eyes during these different periods varied greatly.

Case I retained some vision for three months and had no pain in the eye for seven years, and then not until he accidentally struck it. After this, he had repeated attacks of irido-cyclitis.

In Case IV, the vitreous remained perfectly transparent for more than two years, and the detached retina could be clearly seen.

Case VII was seen five days after the injury, and although there was suppurative iritis and hypopyon, yet he had no pain, nor did he have any until two days before the operation was performed.

The rapidity with which the suppurative process occasionally progresses is strikingly illustrated by Case XIII. Although seen in twenty-eight hours after the accident, there was then severe iritis, closure of the pupil, and hypopyon. He suffered violent pain for several days, and was, in fact, never entirely relieved from it until after the enucleation.

There was violent irido-cyclitis in Case XII, from swelling of the lens, but no suppuration, and the vitreous was found perfectly transparent, and the choroid and retina healthy.

In all the cases but two (V and XII), the eye was more or less disorganized by suppuration.

Case IX is the only one in which there was sympathetic irido-cyclitis, and where the sound eye was lost. In all the others, there was more or less sympathetic irritation, but no iritis or irido-cyclitis.

The attacks of suppurative choroiditis which these eyes are subject to can frequently be traced to some slight blow upon the eye, or to some severe physical exertion, or to protracted exposure to cold and wind.

In the interval between the attacks of inflammation, the eye may be perfectly comfortable—not tender to pressure, and not in any way, except by its blindness, interfering with physical labor. In some cases, however, it is never entirely free from slight irritation. The patient may not be aware how much he favors the injured organ, by closing it when exposed to bright light or strong wind, or by drawing his hat-brim down, or by turning his face slightly around. These methods of protecting the eye are resorted to involuntarily.

In other cases, patients complain that they are able to read only a short time, and but little or not at all at night. After enucleation, in these cases, the sound eye very soon regains its original strength. But if the operation has been delayed until iritis and cyclitis have set in, the chances are decidedly against a favorable result. I can not say how often sympathetic inflammation generally results from such accidents. Its frequency doubtless depends on some unknown and subtle influence which we can not explain.

The locality in which the foreign body is lodged is supposed to have an influence on the development of sympathetic ophthalmia. In ten of these cases, it was found in the immediate vicinity of or in direct contact with the ciliary body, and yet in only one case was this unfortunate and dangerous form of inflammation developed.

The timely removal of the injured organ is the best and the only safe plan of treatment. If delayed until irido-cyclitis has developed in the sound eye, its efficacy is, to say the most, doubtful; but if done early, it is sure to prevent that almost fatal disease. The operation is so simple, and the recovery from it so rapid, and the indications generally so plain, that no one need hesitate as to what is the proper course to pursue.

The Cause of Similarity in Twins.—Dr. J. F. Bird, of Philadelphia, writes:

"It has long been my purpose to call the attention of physiologists and medical practitioners to the consideration of the probable causes of the fac-simile representation of twins. It is a question of considerable interest that twins should so frequently be so much alike that even their parents can scarcely know the one from the other, whilst other persons can not at all determine which is '*Minnie*' and which is '*Bessie*.' In my experience, and that extends to a number of well-marked cases during a period of over thirty years, I have invariably found that when twins are contained in the same sac, and sustained by the same placenta, they have always had a slavish resemblance to each other; whilst those contained in different sacs, and sustained by different placentæ, are as unlike as children born of the same parents at different periods, however remote. This hypothesis is sustained, not only by actual and positive and repeated observation, but by inquiries made of other observers. In one family there are two cases of twins. The first pair were contained in the same sac of waters, and are exactly alike; the other pair were delivered from different sacs, and are no more alike than are the other children. I delivered a case also of triplets. Each child was in a separate sac, and neither resembled the other particularly. Let these observations go to the curious or speculative members of the profession for what they are worth. I am satisfied with the theory, and believe that close observation will establish it beyond contradiction."

Correspondence.

EDITOR LANCET—*Dear Sir:* In the February issue, in my review of the new and great work on *Obstetrics* by *Leishman*, the following sentence occurs: "*Dr. Barnes*, in 1857, recommended the employment of the perchloride of iron injection in post-partum hemorrhage."

Your correspondent, *E. B. S.*, in the March issue, takes exception to the above, and says a credit is given *Dr. Barnes*, which "everybody of any obstetric information in our city knows belongs to *Dr. Geo. Mendenhall*."

This last statement contains so much of misconception and misrepresentation that it should not be permitted to pass unanswered.

It will be observed, in the above quotation from my review, that no mention or credit is given Dr. Barnes, of London, for any priority in the use of iron injections for uterine hemorrhage.

But since, as stated, in 1857 he first recommended it in his Lettsonian Lectures, which recommendation was the first public recognition of its employment by any English or American authority; and since these lectures were published in the London Lancet, vol. ii, 1857, which necessarily gave the information to the profession world wide; and since, too, Dr. Barnes has been mainly, almost solely, responsible for the introduction of this means into practice in Great Britain and even this country, it is not a matter of surprise that its use is connected with his name and with credit to his reputation.

As to how he came to employ it, and when, are determined by the following:

In his work entitled "Obstetric Operations," page 437, he says: "The first idea of using this means in uterine hemorrhage was suggested to my mind on reading that the perchloride of iron had been injected into an aneurismal sac." Again, in vol. xi, page 228, of the London Obstetrical Transactions, he says: "Long before becoming acquainted with the experience of D'Outrepont and Kiwisch I had been in the habit of using the remedy." And, on page 240 of same, speaking under the subject of post-partum hemorrhage, and referring to his lectures delivered in 1857, in which the public recommendation of the means was made, he says he "*had used it* BEFORE THAT DATE."

But E. B. S. claims that the credit is due Dr. Mendenhall. Let us see. Fortunately the doctor has put himself upon record.

Dr. Mendenhall first reported a case in CINCINNATI LANCET AND OBSERVER, November, 1860, as occurring on September 29, 1860. There it is stated that its use was suggested by having seen its beneficial effects in a case of chronic inversion. In May number, 1861, CINCINNATI LANCET AND OBSERVER, another case, having occurred September 7, 1861, is reported; up to which date, he remarks, he had used the agent four times successfully in extreme cases. In the March number, 1868, page 152, of CINCINNATI LANCET AND OBSERVER, there is reported a clinical lecture of Dr. Mendenhall, delivered January 25, 1868, upon a case of post-partum hemorrhage. The following is here recorded: "I am not aware that this remedy was ever used in post-partum hemorrhage until employed by myself in 1859."

I will not call in question, for a moment, that the use of the iron injection was original with Dr. Mendenhall; but it can not be said for him that he has *any priority* even over Dr. Barnes, as the above facts prove.

But to whom can we really give priority?

In Genser's Naegeli, 1867, page 713, under the head of post-partum hemorrhage, it is stated that the injection of the chloride of iron solution was first recommended by D'Outrepont. Barnes, in his Obstetrical Operations, page 437, says: "It appears from Hohl, that the injection of perchloride of iron was first used by D'Outrepont." Leishman, Obstetrical Works, page 402, gives credit to the same authority. Later, its value was confirmed by experiences of Kiwisch, who strongly praised it in 1846. See Beitrage zur Geburtskunde, 1846; Barnes, p. 437; Leishman, p. 402; Scanzoni, vol. ii, p. 301; Grenser's Naegeli, p. 713.

Other authorities might be named and quoted long before 1859, but the above are sufficient. Very respectfully,

C. D. PALMER.

CINCINNATI, *March* 18, 1874.

Selections.

Description of a New Forceps.—To alleviate and abridge human suffering and to increase the sum of human life are the cardinal objects of the physician's labors. Dr. Paul Chamberlain, by his invention of the obstetric forceps, made a notable advance toward these objects; and whoever improves this instrument so as to extend its usefulness makes some advance in the same direction. This I have endeavored to do by attempting to make the instrument less objectionable in appearance, more easy of application, and diminishing its liability to do harm.

All, or nearly all, the forceps which I have seen seem to me to possess one or more of the qualities of frightfulness, awkwardness, inefficiency, or destructiveness.

The first object I had in view was to divest the forceps of their uncouth or frightful aspect. To accomplish this the instrument must be shorter, lighter, and present a less "martial"* appearance. The handles could not consistently be shortened and maintain the same length of shanks, and shortening of the latter was not admissible unless a joint or lock could be contrived which was not liable to pinch. At this point my labor began. To effect that object I have contrived a convenient and secure lock which cannot pinch under any circumstances. I have reduced the shanks to two inches, the handles to three and a half inches, thus making an instrument, the entire length of which, in a right line, is 11¼ inches, capable of being used at the upper strait. To this I have added adjunct handles which, when used for difficult cases, increase the entire length to 15¼ inches.

The next point to be attained was to produce a blade with all the facility for grasping and traction which pertains to the best instruments in use, such as Davis' and Hodge's, and to lop off redundancy, all that might interfere with its perfect ease and safety of application. Now, when traction is made, no part of the instrument touches the head except that portion of the blades which is forward of the point of greatest expansion. Hence it is plain that no width of blade posterior to that point can make any difference in the safety and facility of extraction or firmness of hold. But it is easy to comprehend that a considerable width of this portion of blade may interfere seriously both with the safety and ease of introduction. With these views of the case, I have given my blades ample width (1⅞ inch), from near the tips to a point 3¼ inches from the tips, in a right line, and from this point they rapidly decline in width to the shanks. This wide portion of the fenestra admits of the protrusion of the parietal protuberances, retaining all the advantages of the wide blades of Davis and Hodge, and discarding the disadvantages of their width of heel portion. The length and cephalic curve of this portion of the blades are such that the tips can never endanger the perineum by extending beyond the chin, their maximum extent being 3¼ inches from the parietal protuberance, which can never reach the chin.

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*A much venerated teacher, before proceeding to demonstrate the long forceps, always expressed regret that the instrument had such a "martial appearance."

To improve the pelvic curve was another point of consideration, so that when the blades are on the head at the upper strait, the shanks or handles shall be in the center of the os externum. The reason for this is twofold: first, the better to preserve in the mind the position of the head, and the true line of motion; second, to avoid the pressure of the handles against the perineum, and in many cases to avoid the necessity of moving the patient from her dorsal position in bed. To accomplish this I have commenced the pelvic curve at the joint, so that the axial curve is uniform from the joint to the tips of the blades, thus increasing the length of the ordinary curve two inches, and rendering the curve of the blade more gentle than in many instruments; this has the effect to throw the handles more forward, and in effect to increase their length about one inch. The curve is an arc of a circle whose radius is nine inches, projected from a line perpendicular to the joint, and supposed to be very nearly the average curve of axis of pelvis. With these conditions the short instrument can be easily applied at the upper strait and give sufficient projection of handles to afford a good hold.

But to provide for those cases in which much leverage, traction, or rotation is required, I have provided supplemental handles. When these are inserted we have a veritable long forceps of about the usual length, each branch as firm as if it were one solid piece. And here I have innovated: the adjuncts curve downward nearly as much as the blades curve upward; at least the point of traction near the end of adjunct is about the same distance below the joint, or axis of the handles, as the point of resistance is above (which is a point about 1½ inch forward of the point of widest expansion). This arrangement gives us the advantage of making traction directly in the line of motion during the entire passage of the head, without distracting the attention or requiring a hand to make downward pressure on the shanks or handles. Another advantage of the downward curve is that it affords a lever of three inches in length for rotation; this peculiarity of the instrument pertains to no other in use, Hodge's handles curving downward in only a slight degree.

We have, then, in this instrument, all the advantages of both a long and a short forceps, without the disadvantages of either. The short instrument has the advantages of lightness, portability, mildness of appearance, and in its application does not confuse by length and weight of handles. The long instrument has the single advantage of greater power. My short instrument will answer in all cases not requiring great power of traction or rotation. It is my method to begin all operations with the short instrument; then to attach the adjuncts when required. They can be inserted in less time than is required to take from the pocket and put on a pair of spectacles.

It is not my design to criticise other forceps, but the observer will perceive that the length of the blade and cephalic curve are such that when the head is grasped (3½ inches), the tips will approximate to 1¾ inch, and will be nearly one-half an inch from point of chin. The measurement of width of chin is about 1½ inch; therefore this instrument will hold more firmly than one whose tips are two inches apart when the head is grasped. The more accurate the fit, the less pressure is required for extraction.

My instrument when short has a grasping or crushing power, as compared with Hodge's instrument, of .737 to 1.172, being less. When long, as 1.473 to 1.172, being more; but as it has a crushing latitude of only one-half inch on the average head, no inconvenience or damage can result from this cause. Hodge's instrument has a crushing latitude of one inch, its width, when closed, being but 2½ inches.

Some practitioners may fail to perceive the full importance of having the forceps dual, or short and long. I think with the truly humane it must ever be a maxim to not only spare the patient all unnecessary danger and physical pain, but all mental and moral shock; hence the less alarming the appearance of the instrument the better. And if the maxim of Hodge be acted upon, that "the forceps ought to be applied and used without the consciousnessness of the patient," the instrument of 11¼ inches length and 11 ounces weight could be concealed more easily than one of 16 inches and 17 ounces. The adjuncts can be added without bustle or noise.

The teachers from whom I derived my early maxims in obstetrics rather discouraged the frequent use of forceps, and with some reason, when we consider the kinds of instruments that were in use thirty years ago, also most of those in use now. But I think if this instrument were in the hands of every practitioner, they would overcome their timidity of using forceps, and a vast amount of suffering would be spared. The instrument itself has no injurious property; the only conditions necessary to make its use entirely safe are, that there shall be sufficient relaxation, and that the head shall properly present.

The blades and shanks being so nearly of the exact curvature of the pelvis, and this curve extending clear to the joint, there can be no uncertainty as to the direction for traction; all one has to do is to move the blades in the line of their own curvature, and it is the same whether the instrument is used long or short. When the adjunct handles are used, they antagonize the upward curve of the blades so exactly that full tractile force can be exerted in the exact line of motion.

The construction of the shanks, joint, and handles differs from other instruments in this: that the shanks and handles are about $\frac{5}{32}$ of an inch apart, and touch each other nowhere except in the socket and at the end of the handles; thus, pinching is impossible. The joint has all the facility for junction and disjunction of the English joint, and all the security of the German or French. I have used the instrument nearly two years, both at lower and upper strait, and find it to answer fully my expectations. It will rarely be necessary to change the position of the patient in bed from the dorsal.

Measurements and *phases* are given in the figures.

Figure 1. Length, *a*, *b*, 11¼ inches in right line; *a*, *c*, 6 inches; *a*, *d*, 3¼ inches. Width, *e*, *f*, 3 inches. Shanks, *e*, *g*, 2 inches. Handles, *g*, *b*, 3½ inches. Between tips, *h*, *h*, ⅞ inch. Thickness

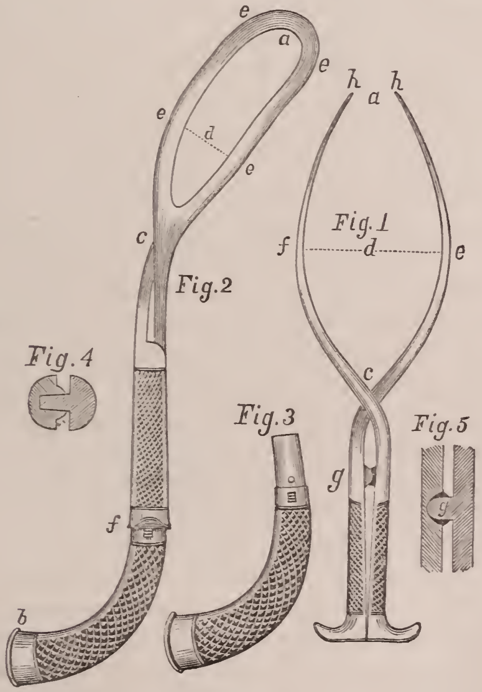
of limb at *e*, *f*, $\frac{5}{32}$ of an inch. Distance between handles at joint about $\frac{5}{32}$ of an inch.

Figure 2. Length, *a*, *b*, in right line $15\frac{1}{4}$ inches; *a*, *c*, 6 inches; *a*, *d*, $3\frac{1}{4}$ inches. Width, *e*, *e*, *e*, *e*, $1\frac{7}{8}$ inch. Width of limb, $\frac{3}{8}$ inch. Width of fenestra, $1\frac{1}{8}$ inch. Elevation of highest point of blades near tip, $3\frac{1}{2}$ inches. Limbs beveled on outer edge of pelvic surface.

Figure 3. Adjunct handle, same as *f*, *b*, Fig. 2.

Figure 4. Transverse section of handles through the joint, showing rocker in socket.

Figure 5. Horizontal section through joints, showing rocker and socket.



The points of advantage claimed for this forceps over all others, leaving all the old short forceps out of the question, are—

1. More easy of introduction and application to the head by reason of the improved pelvic curve, the shape of the blade, and the absence of long and heavy handles.
2. Facility for making traction direct in line of motion.
3. Facility for rotation by reason of downward curve.

4. Entire exemption from pinching, either by joint or shanks.

5. The proper length of anterior portion of blades; the absence of unnecessary width or thickness of any part of blades, and the perfection of pelvic curve extending from joint to tips—rendering it less liable to do harm.

6 Less frightful or momentous in appearance; the short form being the only one brought to view of patient or attendants. (It is as necessary to conserve the equanimity of attendants as patient.)

7. More conveniently portable.

8. Facility of joint for locking, unlocking, and security.

9. The shortness and lightness of the handles (in the short form, which is always used in introduction) give a finer sense of touch and direction of blades.—ALEX. MCBRIDE, M. D., *of Berea, Ohio, in Amer. Jour. Med. Sciences.*

New Remedies.

Reported by J. S. UNZICKER, M. D.

Cosmoline.—Here we have another addition to the many useful preparations already produced from petroleum. If cosmoline will do what is claimed by its manufacturers, Messrs. Haughton & Co., of Philadelphia, it will at once enter as one of the important remedies on our list of materia medica. Not being as yet in possession of a sample for investigation, I can not speak of its merits, but will quote from the circular sent me:

"It is simple, positive, and almost indestructible. It does not evaporate below 400° F., and never becomes rancid. No acids or alkalies are used in treating it. As an emollient it is superior to glycerine, and from its absolute non-affinity for oxygen or moisture, it can be used where glycerine would produce serious irritation. In burns and scalds it is invaluable. It allays acute inflammation almost immediately, and protects the injured parts from the action of the atmosphere. It is useful in hemorrhoids, skin diseases, chilblains, chapped skin, as menstruum for injections, for surgical dressings, for making cerates, ointments, etc. It combines with sulphur, iodine, bromine, camphor, gums, resins, etc., but does not combine with proof spirits. For general purposes, it is furnished of the consistency of jelly, which is fluid at 85° F. For special purposes (injections, etc.), it is prepared fluid at 32° F."

Please correct a serious mistake in last number, on page 169, fourth line from bottom. Instead of *one-half grain*, it should read *from one-twelfth to one-eighth grain.*

Editorial.

The Medical College of Ohio.—The following are the names of the graduates, at the Fifty-third Commencement, February 27, 1874:

John H. Alexander, Indiana; Charles Anderson, Jr., Ohio; J. R. Anthony, Kentucky; James A. Averdick, Indiana; R. W. Biggs, Kansas; A. D. Booth, Indiana; J. Boushey, Ohio; Gaston Boyd, Kansas; H. C. Brison, Ohio; J. P. Buckner, Indiana; J. T. Carter, West Virginia; Thomas R. Cave, Indiana; J. N. Charles, Indiana; W. L. Clagett, Pennsylvania; Henry C. Clark, Kentucky; A. M. Collins, Kentucky; Jno. J. Coran, Ohio; Lewis C. Cowen, Kentucky; J. H. Crumm, Illinois; Jno. A. Culver, Indiana; R. A. Dameron, Kentucky; James N. Day, Iowa; Will. S. Dempsey, Ind.; Wm. L. Duff, Pennsylvania; W. H. Dunn, Indiana; J. B. Dustin, Ohio; S. G. H. Edwards, Illinois; L. J. Fogel, Indiana; Joseph Francis, Kentucky; L. F. Gahn, Ohio; William I. Goodin, Ohio; Salem Goodner, Jr., Illinois; N. J. Goshorn, Indiana; W. L. Hallam, Illinois; J. T. Hanson, Ohio; H. R. Hosmer, Ohio; H. B. Hunt, Indiana; M. V. Hunt, Indiana; G. H. Huschart, Indiana; James G. Hyndman, Ohio; James A. Johnson, Ohio; M. H. Kendall, Ohio; B. F. Laird, Kentucky; J. M. Lane, Ohio; J. M. W. Langsdale, Kentucky; F. C. Le Blond, Ohio; A. M. Linhart, Pennsylvania; James M. Logan, Ohio; Harvey T. Lowry, Ohio; J. I. McCauley, Illinois; T. S. McGarraugh, Ohio; E. G. McGinnis, Kentucky; Jno. D. McKinney, Ohio; John L. Marsh, Indiana; Frank A. May, Illinois; O. H. Mennet, Indiana; S. I. Mock, Maryland; W. H. Monahan, Ohio; L. R. Mundhenk, Ohio; S. J. Nicolay, Ohio; J. C. Norman, Missouri; J. H. Palmer, Jr., Iowa; Jas. A. Pierce, Maine; J. N. Pocock, Ohio; Wm. P. Preston, Ohio; Jos. Ransohoff, Ohio; J. H. Rendigs, Ohio; R. H. Roope, Indiana; Wm. N. Sanderson, Ohio; A. F. Schofield, Ohio; M. T. Shively, Indiana; I. N. Smith, Ohio; Wickliffe Smith, Pennsylvania; J. E. Terrill, Kentucky; Ernst Timmerman, Indiana; Geo. J. Turner, Ohio; R. B. Turner, Missouri; J. M. Vandyke, Ohio; J. P. Wallace, Ohio; E. F. Wells, Indiana; J. F. White, Illinois; L. E. Wilcutts, Indiana; T. J. Woolfold, Kentucky; R. R. Worthington, Kentucky. Total, 84.

Miami Medical College Commencement, March 2, 1874.—Mr. Alexander H. McGuffey, President of the Board of Trustees, conferred the degree of M. D. upon the following named graduates, 53 in number:

Hiram A. Amsden, Ohio; Lewis C. Anderson, Ohio; Lewis P. Armstrong, Ind.; Marshal D. Bedal, Ohio; Ira Bishop, Ohio; Laban Booton, Ohio; Willis S. Bryant, Ind.; James G. Calhoun, Mo.; Edwin Y. Chilton, Ky.; Eli B. Conway, W. Va.; William J. Cook, Pa.; Erasmus D. Crooks, Ind.; Alvin M. Davis, Pa.; S. Chase Dekrafft, Ohio; Charles E. Diven, Ind.; Samuel L. Ensminger, Ind.; Peter Garber, Ohio; Henry L. Godden, Ohio; Wilson S. Harper, Ohio; Joseph W. Harris, Ohio; Hiram D. Hattery, Ind.; Francis P. Hesterley, Ark.; Charles S. Hellman, Ohio; Simon D. Hildt, Ohio; Joseph H. Hilton, Ohio; Charles A. Hoff, Ohio; David P. Jackson, Ohio; Erastus A. Jennings, Ohio; Charles E. Jones, Ohio; Israel C. Jones, Ohio; William S. Jones, Ohio; Thomas J. La Follett, Ind.; Charles W. Martinie, Ill; William D. McClelland, Ind.; Arthur G. Meserve, Ill.; Isaac C. Miller, Ohio; John Mills, Ohio; William R. Mizell, Ill.; James L. Neave, Ohio; Edwin S. Nelson, Ohio; Henry B. Pinney, Mo.; Sanford H. Prickett, W. Va.; John Reynolds, Ohio; George E. Routh, Ill.; James ½. Shanley, W. Va.; Lewis W. Schmieder, Ohio; Daniel Sigler, Ind.; Israel G. Sims, Ind.; De Witt C. Smith, Ohio; Alfred N. Towles, Ind.; Richard J. Wilson, Ind.; Theodore C. A. Wrede, Ohio; Leo. J. Weinstein, Ill.

The Dean announced that Professors Clendenin and Cilley had offered prizes to the class, and that Messrs. Charles A. Hoff and James G. Calhoun were the successful competitors. This announcement was received with applause. The judges in the contest were Drs. Davis, Brown, and Ludington, and Mr. Hoff received the latest edition of "Erichsen's Surgery," while to Mr. Calhoun was presented "Gray's Anatomy."

The valedictory, on the part of the faculty, was delivered by Prof. J. B. Hough, after which the large audience dispersed.—*Gazette.*

Obituary.—On the announcement of the death of Dr. Jno. D. O'Connor, the physicians of Tiffin city, at a meeting, held February 23, 1874, at the office of Dr. McFarland, adopted unanimously, the following resolutions:

Resolved, That we have heard with great sorrow and regret of the death of Dr. Jno. D. O'Connor, whereby the community has lost one of its best citizens, and the medical profession one of its most accomplished, useful, and honorable members.

Resolved, That we deeply sympathize with his family, in the loss they have sustained; and, as an evidence of our high regard for the memory of the deceased, and sincere condolence with the bereaved, we will attend his funeral, on Wednesday, the 25th, at 2 o'clock P. M., from the residence of his friend, Judge Lang, on Market street.

Resolved, That a copy of these resolutions be sent to his family, as a token of our sympathy.

Resolved, That copies also be furnished for publication in the different papers of this city, and the LANCET and OBSERVER, of Cincinnati.

Iodine in Incontinence of Urine in Old People.—Dr. Schmidt, of Munsterfield, having witnessed useful effects from the exhibition of iodine in incontinence of urine resulting from paralysis, determined to try it in other cases. An old lady, aged eighty, who had always enjoyed good health, and was very active for her years, was attacked at the age of seventy-six with dysentery, which very much weakened her. From this time the urine passed involuntarily, and for four years she suffered great misery in consequence; from her age her condition was looked upon as incurable. The author gave her one drop of tincture of iodine every hour, and the following day she was able to hold the urine, and she continued the medicine (every two hours one drop) for a fortnight, and with complete success. The discontinuation of the medicine for some time led to a return of the symptoms, which disappeared, however, directly the medicine was resumed. It was continued, therefore, with occasional suspension, for two years, when she died from the effects of a blow.

Another case was an old man, aged seventy-four, who had suffered for six months from the same affection. He was ordered pills, containing each 1-10 grain of iodine. Immediate improvement followed; he was never quite able to do without the remedy. He died eighteen months later, from inflammation of the lungs.—*N. Y. Med. Times.*

Reviews and Notices.

LONGVIEW ASYLUM.

"Si vero jam ad patriam oculos adverto, nescio utrum me gravius moerore commoveri an pudore suffundi sentiam."—*Schroeder van der Volk.*

We are perfectly aware, Mr. Editor, of the inexpediency of criticising our public institutions, of hinting at their mismanagement, which is the inexorable consequence of their primordial organization. Time, no doubt, will come, in regard to public affairs, when no man will be called upon to perform duties for the discharge of which he has not been thoroughly prepared, however kind-hearted he may be. No divine "fiat" can spare us the hardihoods, deceptions, and moral as well as pecuniary losses, which pave the road to that goal.

This consideration, Mr. Editor, is intended to meet the imputation that we rejoice in detracting from the merits of those connected in one way or another with Longview Asylum. It is not Dr. Webb's fault that he is the superintendent, nor is it that of the directors by whom he was appointed. No blame attaches to the former for writing reports innocent even of the slightest coat of scientific varnish, of popular interest and information. No reproach is deserved by the latter for receiving and indorsing them "with pleasure." All this and much more, which it would be too tedious to recapitulate—the selecting of the most malarious tract of land to be found in Hamilton county, for instance, for the erection of the asylum—is deeper rooted than in individual incapacity and shortcomings, and will stand until, in the course of development, changes have been wrought in departments which seem to be entirely unconnected with the institution, the fourteenth annual report of which we intend to review—*sine ira et studio.*

The directors' report to the Governor shows that the gentlemen have been engaged, under the superintendent's auspices, in medical investigations of the most subtle nature. It is to be regretted that they have failed but in ruminating Dr. Webb's views, laid down on pages 12 and 13 of the thirteenth report, "regarding habitual inebriety as a species of insanity." . . . "When we view the alarming progress of intemperance, and realize its effects, we can but think legislation in this direction would be a national benefit." Dr. Webb's report for the year 1872.

The directors now, in their report for 1873, previous to urging the Governor "to use all endeavors to secure healthy legislation"—you should present each of the gentlemen with one copy of Herbert Spencer's "Social Status"—go on not only to declare intemperance a disease (they have Dr. Webb for authority), "for disease it certainly is" (page 3), but they maintain (improving on Dr. Webb), with the aplomb of psychiatrical authorities, that it "may be hereditary or acquired, continuous or paroxysmal, just as monomania, suicidal mania, homicidal mania, or any other form of mental alienation."

Should not the superintendent have warned his friends that there is a tendency in certain classes of society to exaggerate the influence of intemperance as a cause of insanity? Should he not have told them that generally it is impossible to ascertain whether intemperance is the exciting or the predisposing cause—to say whether it is the cause or a cause, the result or a result of insanity? This, probably, would not have suited their own pet views; but, being the truth, they should have been allowed its benefits. In many cases, business anxieties, frustrated hopes, the consciousness of one's own incapacity to discharge duties willfully assumed, and all sorts of depressing emotions, push a man, hitherto temperate and of regular habits, to betake to drinking, bad company, and a dissolute way of living, finally terminating in insanity. Will Dr. Webb take upon himself to decide, in such a case, whether the intemperance is responsible for the insanity, or *vice versa?*

We humbly suggested in the March number of the LANCET AND OBSERVER, for 1873, that Dr. Webb treat the influence of our public as well as domestic system of education, in regard to the production of insanity. We hoped that, by the way, he would try to elucidate the question whether there is or not some connection between it and abusive drinking too. This is not below the superintendent's dignity. Part of the subject has been treated, a couple of years ago, in a masterly manner, in the London Journal for Mental Science (reprinted in Youmans' Popular Science Monthly), under the head of "On the artificial production of stupidity in the public schools." There are a great many more important as well as interesting questions left, deserving even of Dr. Webb's distinguished pen; for instance, what is the effect of our political organization—of the rotation in office, of the passions of party struggles, etc.—in producing insanity, in determining its forms and modifying its course? Is there no deleterious influence to the integrity of the mind to be traced to the ten-cent literature devoured by many women and craved by half-grown boys and girls? We hope to enjoy and be profited by Dr. Webb's views on these and other topics, when he enters upon the course of lectures which he is expected to deliver shortly.

The directors, Mr. Editor, while making suggestions to the legislature, through the Governor, and indulging in medical theories, entirely refrain from considering and supporting the superintendent's claims. We may pass the report on improvements and repairs, and proceed at once to Dr. Webb's "wants." Page 6: "I would again urge upon the board, and, through them, the powers that be, the urgent demands made by this unfortunate class for additional room." Page 8: "We are sorely pressed for want of room, and I can see no other way for escape save in the construction of additional buildings." Page 9: "There is an urgent demand for a larger chapel." Page 13, on insane epileptics, we read: "Perhaps the wisest and most beneficial means (?) of providing for them (insane epileptics with lucid intervals), would be the erection of an asylum." *Ibid.:* "So far as concerns this institution, the only means of placing them to themselves (the epileptics), . : . is to be found in the addition of another building to the present one, and in it one or more wards set aside for this class of patients."

After this, and with the knowledge that, upon an average, 591 lunatics have been packed in a building intended for 300 to 350 to the utmost, one should have expected the directors to meet in consultation with the superintendent, and earnestly to discuss the means of stopping such a horrible, nay, criminal condition of things. It is very easy, indeed, "to see no other way, save in the construction of additional buildings;" but if it had been made the duty of the superintendent to report by what means it has been tried to alleviate the overcrowded condition of asylums in general, and with what success; to investigate which of these means of asylum drainage could be resorted to under the given local conditions; to give his views on the practicability of compulsory removal of patients, then, possibly (?), some more judicious expedient might have been found than to come back again to "additional buildings." The very same expedient was suggested by Dr. Webb, in his report for 1871, and we are sorry to find that his views on the subject have not improved since. We will repeat, in part, what we then said: "It is a question, settled long ago by the most experienced psychiatrists, that a lunatic asylum, sheltering more than 300 patients, is being deprived more and more of the character of a medical institution, assuming that of a cavern or some other monstrous receptacle for the concealment and confinement of the insane. . . . The control of the institution, in its details, escapes even the most energetic and talented superintendent, and the individual treatment of the patients is rendered an impossibility." Dr. Webb has thought it convenient, Mr. Editor, entirely to ignore the well-intentioned criticisms to which his reports were subjected. We do not dispute that this was the wisest course he could take; but we blame him for not availing himself, in the interest of the patients to him intrusted, of the suggestions made in their behalf. And the directors; they are deaf to the demands of "more room" for the insane, who allow but of the "simplest classification, and that only to a limited extent." (Page 12.) "But we have not and can not possibly get . . . room for the separation of the epileptics from other patients." (*Ibid.*) To all this, they are deaf, but advocate special legislation and the establishment of an institution for the intemperate. I do not know whether a formal bond is required from the relatives or guardians of patients demanding admission to Longview, whereby they promise to take such patient back when required to do so by the superintendent or directors, without any right of inquiry or complaint as to the cause of such order.

A written promise of this sort is obligatory in most of the English establishments, and if it is not, it should be adopted as a rule for our county asylum too, to be acted upon, if necessary, for the welfare of the patients themselves and of the institution.

Now, the question is this: Are there not many patients at Longview who might be discharged or removed therefrom with advantage to themselves and the establishment? Undoubtedly, there are. Take the twelve patients supported by their friends, the pay-patients. Could they not be cared for and treated—the great majority of them, at least—better than at Longview? Why should not the friends succeed in placing their patients in private families, with respectable farmers, country clergymen, perhaps even physicians?

Demand invariably calls forth supply. It is my conviction that if the pay-patients were discharged, all of them would be disposed of in less than a fortnight, and this, too, with benefit to their prospect of recovery, and to their comfort. Certainly, faults and mistakes would be committed, but why not allow experience and time to teach how to avoid them? There are 476 patients maintained at the cost of the county. Amongst these, are a great many chronic, confirmed cases, many of whom are imbeciles or idiots; many are harmless; some more or less industrious and capable, to a certain extent, at least, to support themselves, and to enjoy life infinitely more than even by dancing parties and concerts at Longview. The great majority of this class of patients could live in private families—best, to be sure, in the country, but in townships and even larger cities, too. This class of lunatics can dispense with medical treatment, properly speaking. What they want is proper and sufficient food, healthy lodging, cleanliness, a kind, humane behavior on the part of their tutors, besides appropriate means and opportunity to exercise what is left to them of mental and bodily strength. Printed and verbal information would have to be given to those who would take charge of such patients; a reliable control could be organized in order to prevent abuses. Physicians, lawyers, clergymen, intelligent and respectable men of any vocation, would eagerly enlist in the service of supervision of the insane outside the asylums, if only instructed how to perform that duty by Dr. Webb. We are not elaborating a plan to be acted upon; we are simply offering a few ideas for consideration, perhaps for trial. Supposing $115,403 to have been expended for the maintenance of 591 patients (the daily average number), the cost per head has been $195. Do n't you think that this sum, or even less than that, offered as compensation and paid out quarterly, would induce some people to try the boarding and caring for a harmless and possibly industrious lunatic? Do n't you believe that more than one wife would be happy to keep her insane but harmless husband at home, if assisted in ministering to his wants? I do, sir! By such means, and many more, which I leave to the superintendent to devise and suggest, the number of patients at Longview might be considerably reduced, thereby heightening the chances of recovery to those who would have to be retained at the asylum. I know that boards of trustees, as a rule, are very adverse to reforms; they are not likely to encourage and promote new departures, for the simple reason that they do not understand their scope and necessity. But, happily, there is a high court of appeals in this country, to wit, the public opinion. To this the superintendent should address, when under the visitation of trustees recommending inebriate asylums, while neglecting to forward the interest of those to whom they are proposed. For this purpose, however, instead of flattering the thoughtless man's vanity, by speaking of "their already munificent outlay in behalf of the insane" (page 6), he should bring the public to understand that a lunatic asylum allowed to have twice the number of patients it should have, without the possibility of classification, without wards for the epileptics, with but two assistant physicians, and a number of nurses entirely inadequate to the number of patients—that such an asylum should be felt as a disgrace to the community rather than as a source of pride, however grandiose the building may appear to the traveler, glaring at it from the window of a sleeping-car. And if everything that could be tried for the purpose of depleting the asylum fails, well, then—have the courage to declare that a new asylum is necessary, instead of advocating "additional buildings." A superintendent possessed of that enthusiasm for his vocation, without which he is unfit for the task, would not have to experience that, virtually, his services are declared superfluous by the board of trustees. When Dr. Webb left for the South, on a leave of absence for the purpose of restoring his health, seriously impaired, it is said, by the malaria of Longview, the steward, Colonel A. M. Robinson, was appointed acting superintendent. Now, the question is this: If the inmates of Longview can dispense with the head medical man for six weeks or two months, and be treated and cared for by a military man, why not for twelve months, or, better still, once for all? But how, if not? No better illustration could be found to show how the directors look at Longview and its medical staff; nor could a more corroding (certainly undeserved) sarcasm have been aimed at Dr. Webb's efficiency as superintendent.

Page 9, a larger chapel is urgently demanded. Why? Because "the present one will admit but a few over half the number at this time." If more than half the number of the patients can enjoy *and be profited* at a time, by attending church, dancing parties, or concerts, it is certainly quite an extraordinary proportion. It seems that the patients are not designated individually for this or that entertainment, but that the respective orders are issued for wards. The superintendent wishes this procedure still shortened by commanding the whole regiment at once.

Dr. Webb wishes a special pathologist added to the medical staff of Longview. The directors, although they might have found stringent arguments to support this motion, play the part of the deaf mute. They seem to understand that there is some fallacy in the argument, and suspect some more hidden motive, besides realizing that the suggestion is impracticable. Could the doctor give the names of three English, or French, or German institutions having a "special pathologist" on their staff? A medical man, engaging in an asylum, should be supposed to be sufficiently conversant with pathological anatomy in general and the use of the microscope to enable him to perform a *post mortem* intelligently and to his credit. This, indeed, is not enough to make him "a special pathologist," not even a diminutive Virchow or Recklinghausen, and therefore we gladly second, as we did last year, Dr. Webb's suggestion; but, what compensation, what inducements, besides the honor of serving on his staff, should the directors offer "to induce those of large experience in this special department to seek the position?" I wonder that Dr. Webb should not have advocated the appointment of a statistician of vast experience—but by his tables. A physician, to be sure, is, by far, more excusable for being ignorant of statistics than for not understanding pathological anatomy; therefore, put a statistician on the staff of Longview. There is one at the world-renowned asylum at Illenau, Baden. Why should there not be one at Longview?

Suppose the medical staff, besides the superintendent himself, consisted of four physicians, instead of two; suppose that four or six young medical gentlemen had entered Longview as volunteers, for the purpose of initiating themselves to the nature and treatment of insanity. Thus surrounded, having the ambition, the emulation, the working energy, and the enthusiasm of youth beside him, a superintendent has multiplied his efficiency a hundred times, if he understands it, to make the most of the forces thus to him accrued. It is his business to give their special dispositions and talents the right direction. This young friend of his he will charge with a microscopical examination, advising, hinting at the probable results, sometimes collaborating. That other young man he will engage in comparative thermometrical observations in the different forms and stages of insanity. The third one may be particularly disposed and prepared for chemical analysis, and often will it be advisable to let them co-operate, for the purpose of controlling, or correcting, or confirming their respective results. This is the way a superintendent has to proceed, in order to form himself a staff, comprising even a pathologist, special enough for his duties. Men "of large experience" in any medical department—Dr. Webb might know that—are not likely to run for a place at Longview, in its actual condition.

Pages 10 to 13 of the report have an extraordinary article under the head of "Insane Epileptics." . . . "For convenience, they are divided into two classes: the one comprising those who, by reason of long-continued lunacy, have become continuously insane, never having periods of lucidity; the other comprising those who are, to most ordinary intents and purposes, sane in the intervals of their paroxysms, many of whom are in a condition of comparative sanity for weeks or months together, their convulsive paroxysms being so infrequent." We will not stop to analyze the superintendent's fanciful description of his second class of epileptics, "many of whom are in a condition of comparative sanity for weeks and months together," etc. Will Dr. Webb and the board of trustees condescend to inform us what this class of patients has to do at Longview? Why are they admitted at all; and, if admitted by error, why not discharged? Has it not come to the superintendent's mind that these patients should not be allowed to stay at the asylum? That their relatives or friends should be taught how to behave when a paroxysm is likely to occur, and during the same? And those who have no families nor friends, could they not be placed with private families, suppose not farther from Longview than Carthage? May be it is impracticable. But has this or anything else been tried? To have nothing else to say but "erect asylums" (for the intemperate, for one class of epileptics), and nothing to recommend but "additional building," would have to be received as a confession of sterility, if corroborated by additional evidence. And how with the epileptics of the first class—"those who are constantly insane, and who are at all times violent" (!)? Dr. Webb wants them (at least—Rep.) "received into the ordinary asylums," *i. e.*, Longview. No separate wards, specially adapted to their wants, are postulated; no attention is paid to the influence their convulsions must have on the insane not epileptics. They are simply to be "received into the ordinary asylums." (!)

We have nothing to say about Dr. Webb's tables. They so much resemble those of his former reports that we may refer to the LANCET AND OBSERVERS, No. 2 of '72, and No. 3 of '73. The only thing we would suggest, in this connection, regards the printers, Messrs. Wilstach, Baldwin & Co. They should not pass their compositors' blunders without a severe reprimand; such as, for instance, page 15, table No. 2, "abcess cerebrum, carcinoma mesentery, malarial toxemia," instead of "abscessus cerebri, carcinoma mesenterii, malarial toxicohæmia, toxhæmia, or toxæmia."

Before taking leave from the directors and superintendent's parts in the fourteenth annual report, let us quote a favorite phrase of Dr. Webb's, with which we agree most heartily: "Whatever is worth doing at all, is worth doing well."

The steward's report, Mr. Editor, is not intended to convey data, from which inferences might be drawn with facility. It aims at a laconism, puzzling even to those somewhat familiar with asylum reports literature. If you take the trouble to compare the steward's reports for '71, '72, and '73, you will find the latest to be the least explicit. The former had a "detailed statement of receipts" and a "detailed statement of expenditures." The last one has no details at all, but—a "face of ledger." In former years you could, with great pains, indeed, find out approximatively how much the asylum had got of this or that article for the amount charged under the respective heads; you could approach, judging by yourself, whether the provisions, for instance, had been lavished away or dealt with niggardly or judiciously; whether the purchases had been made at wholesale or retail prices; whether the inmates of Longview had been fed on salt beef, and to what extent, *et cætera*. But the last report is made up of the usual heads, alphabetically arranged. For instance: Amusements, books and stationery, bookkeeper, butter and eggs, and so forth. Under these heads there is not one specification, except under "daily papers and postage," for the *Commercial*, *Cincinnati Gazette*, and *Cincinnati Times*, but only the names of firms, the amount paid to them, and the sum. Take "groceries," for instance: A. A. Coulter & Co., $9,751.63; Lahmann & Beeching, $582.54; James Vessick, $51.70; and thus down to A. M. Robinson, $2.10; the whole amount paid for groceries being $11,796.44. All the other accounts are given in exactly the same way. We fail to understand what interest the tax-payers of Hamilton county, the governor of the state, and all in general who desire to inform themselves about the asylum, can derive from such statements. Still, upon finding under "farm products," how carefully the pumpkins and heads of cabbage and onions, etc., had been counted, and acknowledging ourselves inefficient as practical accountants, we had decided silently to submit, "and ask no questions" as to the practicability of some other form of steward's report. Just then we had the good luck to hit upon the nineteenth annual report of the Southern Ohio Lunatic Asylum. We take the greatest pleasure to acknowledge that Mr. O. H. Oldroyd's report is a model of what a steward's report should be. It is explicit; it is as clear as daylight, and leaves no room for questions. It has no names of firms and private persons, but it lets you know exactly how much of every article and of what quality and at what price has been purchased. It informs you of how many artisans and laborers, and of how many days and half days and at what wages they have been employed. Three such successive reports would not leave the readers at a loss to explain how there can be differences of thousands of dollars in the expenditure for the same articles in two subsequent years. They could not publish unsettled accounts under the head of "officers' salaries." For instance (or is this correct for the year?): J. T. Webb, $2,250; A. M. Robinson, $3,091.66. Strange figures in the annual report under "officers' salaries!"

Let us hope, Mr. Editor, that the directors will decide upon a change in the form of the steward's report. This, at least, can be done without the assistance of a special pathologist. And had we not become despondent, we would expect to greet Dr. Webb's annual work on Longview, next time, in quite a new garb. Suppose his report consisted of three chapters. The first one would have to embrace the minutes required by law, intended for the directors and the governor, seasoned to suit their taste by some touching meditations on intemperance or the wickedness of the world in general in its relations to insanity. The second chapter might very conveniently be addressed to the medical profession at large, and report cases interesting on account of their psychological development or of their pathological substrata. There would be no professional impropriety at all to presume, hypothetically of course, that there may be some physicians desirous to learn from a reliable source how to behave and what to do when called upon to advise a family, suspicious of one of its members being threatened by mental aberration. A psychiatrical medico-legal case or two would not be out of order in this chapter, for which to contribute should be made the ambition of the assistant physicians and the volunteers. In deference to the tax-payers, the third chapter should be dedicated to them, and made popular, without, however, derogating from the dignity of its professional author.

This part of the report the superintendent could render subservient to his purposes by diffusing useful knowledge on different topics; by explaining the importance of the asylum itself as a means of cure; by showing how its space and architectural arrangements are essential therapeutical items, *et cætera.* He could speak inoffensively of the uselessness of the directors, if expected to fulfill duties beyond that of the financial control; of their meddling with affairs which can not but suffer from their interference—the appointment and dismissal of officers and employes for instance. Thus, by degrees, *i. e.*, by his successive reports, he could bring the taxpayers to feel more and to understand better the duties to be performed to the insane, beyond that of bringing him out of sight and hearing. Then they would not grudge at an increase of taxation in behalf of those who, after all, "are the waste thrown off by the silent but strong current of progress. They are the weak crushed out by the strong in the mortal struggle for development; they are examples of decaying reason thrown off by vigorous mental growth, the energy of which they testify. Everywhere and always 'to be weak is to be miserable.'" (Maudsley, 202.) And to be weak and thereby miserable, we add, is having a bill of exchange, payable at sight, on a bank, the stockholders of which are engaged with the best of their personal property—humanity.

Present that bill. It will be honored, if found genuine!

H.

Electro-Cautery in Uterine Surgery. By J. BRYNE, M. D., M. R. C. S. E. New York: William Wood & Co.

The author discusses the relative merits of various electric batteries and their desirableness for use in the treatment of the various diseases of the uterus, and makes the practical statement that "no surgeon can hope to succeed in the practice of electrocautery, unless when difficulties arise, as in case of failing to obtain sufficient heat, he is not only competent to fully appreciate and understand the nature, causes, and extent of such interruptions, but also possessed of a certain amount of mechanical aptitude, so as to enable him to remedy the defect." In short, as a condition to success, he must be both surgeon, obstetrician, and electrician. The author then proceeds to describe a battery of his own design, with instruments required for cautery operations, followed by a series of cases treated by himself. The book is finely illustrated, and well gotten up by the publisher.

For sale by Robert Clarke & Co.

Griffith's Universal Formulary. By R. EGLESFELD GRIFFITH, M. D. Third edition. Revised and enlarged by JOHN M. MAISCH, Phar. D. Philadelphia: Henry C. Lea.

We regard this as the best work on the subject of which we have any knowledge. It contains all the standard formulas of the different pharmacopœias. The various improvements in pharmacy are noted. A table is given of doses of the most important medicines, table of pharmaceutical names, a chapter on poisons and their antidotes, an index of diseases and their remedies, and what we consider a valuable part of the book, intelligent directions as to the management of the sick room.

For sale by Robert Clarke & Co. Price $5.50.

An Introduction to Physical Measurements. By Dr. F. KOHLRAUSCH. Translated from the second German edition by THOMAS HUTCHISON WALLER, B. A., B. Sc., and HENRY RICHARDSON PROCTOR, C. S. New York: D. Appleton & Co.

The author states a well-known fact which teachers of mathematics will confirm, "that the mere verbal teaching of physical laws is seldom of much use, tending frequently to confuse the mind of the student, while the simple performance of an experiment gives him confidence in himself, and in the laws he is investigating. The work is designed especially to give practical instruction in physical measurements by means of illustrations and experiments, showing the cause of frequent errors of observation and the means for correction, rules for numerical calculations, for adjusting and testing balances, the calibration of a thermometer, the determination of temperature with a thermo element, Ohm's laws of galvanic currents, with an absolute system of electrical measurement.

For sale by Robert Clarke & Co. Price $3.50.

Wythes' Pocket Dose-Book. By JOSEPH H. WYTHES, A. M., M. D. Eleventh revised edition. Philadelphia: Lindsay & Blakiston.

The fact that this little hand-book has passed through ten editions attests its popularity with the profession. It is just what its title states in the briefest possible compass—a dose-book. It also contains a well-arranged table of symptomatology, with outlines of general pathology and therapeutics.

For sale by Robert Clarke & Co. Price $1.25.

Lectures on the Clinical Uses of Electricity. By J. RUSSELL REYNOLDS, M. D., F. R. S. Second edition. Philadelphia: Lindsay & Blackiston.

This is a practical hand-book which has met with much favor with the profession. The lectures were first delivered in University College Hospital, and published in the Lancet, in 1870, and were revised and published in book form. They give very fully the clinical uses of electricity in the diagnosis and treatment of disease. The author's style is familiar and conversational, presenting his subject in a manner that is at once understood by the reader—giving nothing but substantiated facts without entering into debatable theories on his subject.

For sale by Robert Clarke & Co. Price $1.25.

A Hand-Book of Medical and Surgical Reference. By JOHN A. WYETH, M. D. New York: William Wood & Co.

This little book contains a condensed statement of important facts in medicine and surgery, being a compilation from the works of Gray, Erichsen, and Hamilton on surgery, and Flint's Practice of Medicine, the U. S. Dispensatory, Ellis' Formulary, and works of that class.

For sale by Robert Clarke & Co. Price $1.25.

Clinical Researches in Electro-Surgery. By A. D. ROCKWELL, A. M., M. D., and GEORGE M. BEARD, A. M., M. D. New York: William Wood & Co.

The authors of this little volume, we recognize as enthusiastic workers in the department of electro-therapeutics. The work consists of a number of well-reported surgical cases treated by use of electricity. It is by clinical facts such as we find here recorded that we arrive at the real value of any remedy for the cure of disease.

For sale by Robert Clarke & Co. Price $1.00.

Lectures on Diseases and Injuries of the Ear, delivered at St. George's Hospital. By W. B. DALBY, F. R., C. S., M. B. CANTAB., Aural Surgeon to the Hospital. 8vo, pp. 228. Philadelphia: Lindsay & Blakiston, 1873.

The number of books published during the last two or three years on aural pathology and therapeutics would lead us to suppose that the cultivators of this department of surgery were making important improvements in developing this long-neglected field of injury. These lectures do not, however, contain anything new on the subjects they discuss. The lecture on the anatomy of the ear is neither systematic nor complete. The work contains but a small number of illustrations, most of which are of instruments, and the microscopical structure of polypi. Nevertheless, the work will be found to contain a very fair summary of "the diseases and injuries" of the ear, and as it is condensed into a very small space the busy practitioner will find it a useful, convenient book of reference, and practical in its teachings. The style is conversational, and the text consists largely of the author's comments on cases described. The mechanical part of the work is excellent.

The Student's Guide to Surgical Anatomy. Being a description of the most important surgical regions of the human body, and intended as an introduction to operative surgery. By EDWARD BELLANY, F. R., C. S. Philadelphia: Henry C. Lea, 1874.

The title of this work is sufficiently expressive of its character, or at least of the object for which it was designed and the niche it was intended to fill in our medical literature. It is a neatly printed and very fairly illustrated work of three hundred pages, divided into six chapters.

The method of arrangement is very good. The text is limited almost entirely to a description of the surgical regions of the body; those parts of the body which do not bear directly upon the regions involved in practical or operative surgery are omitted. The author gives good practical instructions for the dissection of the several regions, and names the tissues divided in the various surgical operations. A professor of anatomy at our elbow says the work is a good one, and that he will advise his students to purchase it.

Dental Caries and its Causes. An investigation into the influence of fungi in the destruction of the teeth. By Drs. LEBER and ROTTENSTEIN. Translated by THOMAS H. CHANDLER, D. M. D., Professor Mechanical Dentistry in the Dental School of Harvard University.

This is a monograph of one hundred pages in which the authors give the results of their own observations and experiments upon the progress, symptoms, and consequences of dental caries, concluding with a few therapeutic deductions. After presenting a brief resume of the opinions of other writers upon the question, the authors proceed to give a somewhat extended but interesting, scientific description of the anatomical alterations of the teeth during caries, as revealed by the microscope.

Under the head of causes, considerable importance is attached to the form and appearance of the teeth, as determining their liability to caries. On tracing the progress of the disease, it is shown that caries almost necessarily has its origin in the action of acid upon the enamel of the teeth, causing loss of substance or softening of structure. When this has once taken place, fungi—which are generated within the buccal cavity by improper diet, dyspepsia, or neglect of proper cleanliness—pass into the interior of the dental tissues, causing their more rapid destruction than the action of acids alone could accomplish.

While this book is intended for dentists, we do not hesitate to express the opinion, that physicians will find in it much that is interesting, and may glean from it many useful suggestions.

NEW MUSIC.

"*Nellie's Secret.*" Words by KATIE BELLE WICHMAN, music by HARRISON MILLARD. A beautiful melody, destined to be popular. Price 30 cents.

"*Charles Sumner's Grand Funeral March,*" by E. MACK, comes to us from Lee & Walker, Publishers, Philadelphia. It is a beautiful tribute to the memory of the champion of universal liberty, and a copy should be on every piano in the land. It can be had at any music store, or will be mailed to your address, for 30 cents.

Medical Schools and Graduates.—There are in the United States, according to Dr. Toner, 101 medical teaching bodies, classified as follows: Regular medicine, 77—of which 16 teach pharmacy; 8 homœopathic, 8 dental, 6 eclectic, and 2 botanic.

The annual accession to the ranks of the medical profession through American colleges is—Doctors of medicine, 1,698; *ad eundum* degrees, 79; honorary, 16; and 5,776 matriculants attending college. He says, if the returns were complete from all colleges, it would probably reach 2,000 graduates, and perhaps 6,500 in attendance on lectures.

The whole number of the medical profession of the United States numbers 62,383.

THE CINCINNATI

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J. C. CULBERTSON, M. D., Editor.

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Original Communications.

Art. I.—Diagnostic and Operative Medicine.

Read before the Syracuse (N. Y.) Medical Association. By EDWARD B. STEVENS, M. D., Professor of Materia Medica in the Syracuse University.

For my present purpose I use the word *medicine* in its more general sense—embracing all we are required to consider or study in the entire field of professional work, all its departments and wants.

In like manner I shall speak of *operative* medicine, in this connection, in a similar general sense; as suggestive of all such procedures as are necessary, from time to time, to meet whatever indication accident or disease may create. So then it very naturally follows, that in the control of pathological conditions, we may have many *operative procedures* made necessary, which are not by any means surgical in their character.

Between diagnosis and therapeusis, there is a closer relationship than is always recognized, though there is a general acquiescence in the proposition that the accuracy of the latter is dependent upon clearness of the former. The purpose, however, of this paper is more especially to call attention to the fact, that we are tempted to overlook or neglect diagnosis in all such cases as seem to lie outside of our capacity, or our taste, or our appliances, for operative procedures. That is to say—or express in a different manner—in all forms of disease, medical or surgical, where from taste or otherwise we feel a disinclination to assume *therapeutic* charge, we are also prone to omit the diagnostic examination and logic.

This matter comes home to us alike as practitioners and students; more particularly or noteworthy perhaps as students. We enter the lecture-room, and the teacher presents to us some rare disease, or injury, or condition, of which, as we feel a strong assurance, we shall never be willing to assume the personal charge. The strong tendency is to so far ignore the whole subject, that we decline to study any of its features, conditions, or demands.

In the course of our reading we find serious accidents, diseases, or conditions, that suppose or suggest special experience, skill, or devotion to some specialty, to meet the emergency.

In each of these professional demands, while we accept the necessity for especial training and experience, we are also tempted to shift and shirk our own personal responsibility in those points that more especially embrace the first careful study—the *diagnosis* of the particular case before us—forgetful, too often, of the importance of accurately determining the nature of the case, *independent* of determining the demand for the appropriate operative procedure.

Now, this distinction is just alike important for the student first, and the general practitioner always. We pass into the lecture-room or the amphitheater, and we have presented to us cases of acute rheumatism, or dysentery, or continued fever, or simple fractures, or dislocations. At once, our attention is arrested, and all that can be said in regard to the character and management of these cases commands our earnest attention. These are matters we expect to meet from day to day, and we must be prepared to appreciate their features, and enter upon their treatment, their operative requirements. Now, exactly what I desire to urge just here is, that the diagnosis of incurable diseases, the diagnosis of conditions unusual, the diagnosis of conditions the operation for which we may not be willing to assume, are all just as important to us, and to diseased humanity, as those simple routine matters for which all of us, as to therapeutics, propose to hold ourselves in readiness.

I think illustrations of such a proposition will readily occur to most of us. I only propose to enforce this thought with a few examples that will doubtless correspond with the experience of almost every thoughtful observer. . . . .

Standing once in a lecture-room, where the anatomy and surgery of stone in the bladder was being demonstrated, I heard a student with very good standing in the class remark, "This matter is all very brilliant and attractive probably, but it has no charm for me. I have no nerve for surgery. I certainly should never operate in such case—hence what the good to me to make it a study?" Now to just such a practitioner as this will be, suppose there presents a patient: He has uneasy sensations in the region of the bladder, frequent desire to micturate, with pain perhaps; perhaps some alteration in the character or quantity of urine, or both. Now will he shut his eyes to the strong indications of such symptoms, refer them to some indefinite conditions of congestion of the kidneys or irritable state of the bladder, and then proceed to a course of drugs? Or, with better notions, will he proceed to the physical exploration of the case, and thus render himself perfectly certain whether or not there may be some foreign body, some calculus in the bladder, giving origin to this group of troubles.

It would not, indeed, be difficult to explain the several symptoms of the case by some other pathological state; but the careful physician wants to be perfectly sure that his diagnosis is correct, or approximates exactness so nearly as possible. When, however, he has introduced *the sound* and caught the peculiar click of the offending stone in the bladder, the time has then very properly come, but not before, to determine in his judgment whether he is ready to enter upon the distinct and indicated operative procedures. Or, in the absence of this evidence, he may, with a better assurance, enter upon medicinal interference. At any rate, if at any time there be presented, in such a case, the necessity for a delicate surgical operation, which his eye, or his hand, or his nerve refuses, he is still prepared to give the correct advice, both as to procedure and operator.

Or again, suppose a student listens to a lecture on cancer. He is specially impressed with the truth that cancer is of so implacable, so malignant a character, that remedies for the systemic condition, or operations for the local condition, are either without value, or at least only temporizing. So he concludes that malignant diseases are not subject to any reasonable control or satisfactory therapeutics; and therefore adopts the more easy solution of rejection.

But every now and then we are called to determine *whether* a tumor on the arm, or the face, or the mammary gland is simple or malignant. Our decision, perhaps correct, perhaps incorrect, dooms the patient to a serious future; or otherwise we may be able, by an intelligent examination of the case, clearly to say it is benignant—simple and safe procedures will completely eradicate the whole trouble. And yet, no matter how discouraging the aspect of true cancer may be, we want to know its true diagnostic conditions, so that in any event—the event of a favorable group of states—we may be ready positively to determine the certainty of a more simple disorder, and with a positive opinion dictate the therapeutic procedure.

A woman comes to us with an offensive leucorrhœa: the speculum reveals an abraded os, thickened edges, erosive processes. Now is this an aggravated ulceration of the os uteri, or is it an epithelioma? And even if a malignant disease of the milder grade, and subject to treatment, how shall we differentiate? If we have deliberately refused to study malignant disease, because so uniformly, or generally, fatal in its tendency, where shall we begin the study of individual cases. So here again we have suggested to us the close relationship between the important diagnosis of the curable and the incurable.

In general gynecological practice we have like suggestions continually afforded. Take the study of ovarian or abdominal tumors. Suppose a woman presents herself to you, as a patient, with an enlarged abdomen. What is it? Is this a case of pregnancy? Is it a fibroid tumor springing from the uterus or ovary? Is it cystic in its character as a tumor, involving the vessels of Graef? Is it a hytadid mass?

Now the solution of the various questions involved or liable to be present in such a case, may or may not imply operative procedures. *Or if procedures*, these may be very responsible, or very simple; but still, in any event, the intelligent physician expects to be able to announce at once, and positively, both the nature of the case and the proper therapeutics, whether the operations are surgical or medicinal. It will not satisfy either himself, or the patient, that the management of uterine and ovarian tumors are so obscure and unsatisfactory that "I relinquish them to the specialist." Each of us must, or should at any rate, or at the least, be prepared to announce the diagnosis of the case, and then operative therapeutics may become safely and correctly enough a subject of mature consideration.

So, too, specially take the study of those cases, now become by reflection so creditable to the professional name of our own State (New York), through the genius and skill of Professor White, of Buffalo. I mean, of course, those sad cases of chronic inversion of the uterus—in the past such a reproach to us as to therapeutics and diagnosis. In a recent paper read to the New York State Medical Society (February, 1874), Professor White detailed the history of one of these cases, where inversion had existed for about *twenty-two years*, and all the while *undiscovered.* Was not some clever, worthy brother of our craft, in all these years, *culpably responsible* for the distress, the hemorrhage, the exhaustion that this poor woman experienced? At length some brother (was he more thoughtful, or was he more mature and ripe in his diagnosis?) decided from his physical explorations that this woman had an inverted uterus, rather than a fibroid tumor, or a polypoid tumor, or any other of the various possibilities or probabilities that had in these tedious years been variously suggested.

Why did this man determine that it was not a polypous or a fibroid growth, or a malignant excrescence, that he had to pronounce for; or finally, in his process of differentiation, why, after these long years, why did this intelligent practitioner decide that he had positively and purely an inverted uterus. He had first the history; he had a peculiar shaped tumor; on careful manipulation with his finger, the probe, and the sound, *he failed to find an os*, *i. e.*, he had a simple, uniform tumor. He passed a sound into the female bladder, and his finger into the rectum, and failed to find *any body intervening*, so he had the chain of diagnostic evidence comparatively complete. The uterine body was wanting, because it was thrown outside and inverted. There was no os presenting; therefore, reasonably, no fibroid or polypus. And yet for more than twoscore years, this uterus had lain undiscovered between the labia.

With this exploration, our careful diagnostic observer is ready to announce a positive opinion, both as to the nature of the case and its demands. He was not ready to assume its requisite operative procedure; but he had cried *Eureka.* The fulfillment of the demand for operative medicine simply adds another laurel to the crow of our State pride, and gives another trophy to the eminent achievements of Professor Jas. P. White, in his obstetric career.

If I have not demonstrated my chief proposition, it is scarcely necessary to multiply illustrations. I think, however, that in making one part of the matter comparatively clear—that is, the necessity of diagnostic study and capacity, irrespective of the logical operative proceeding—it also becomes somewhat transparent, that almost in the steady ratio of capacity for diagnostic medicine, there is assured to the practitioner corresponding capacity for the performance of the necessary operative procedures.

Art. II.—On the Detection and Estimation of Astigmatism.

By J. B. HOUGH, M. D., Professor of Chemistry and Toxicology in the Miami Medical College of Cincinnati.

The affection known as astigmatism is characterized by a difference in the refractive power of different meridional planes of the eye, and a consequent diminution of the sharpness of vision.

The axis of vision is the line that lies in the common intersection of an infinite number of planes passing through the optical center of the eye and the object observed. In any one or more of these planes the refractive power of the eye may be either greater or less than in the others. Though this excess or deficiency of refractive power may not *in itself* be an abnormality, it will of necessity give rise to abnormality of vision from the non-coincidence of the focal distances of the different planes.

Whether the following simple method for the detection and estimation of the affection be new or not, it seems to possess advantages deserving of notice, both on account of simplicity and accuracy.

It is well known that an astigmatic eye is unable to define distinctly vertical and horizontal lines *at the same time.* It may define either better than the other at different moments, but can do so only by a change of accommodation. If the latter be completely relaxed, the lines most distinctly defined will always lie in the plane of greatest refraction, or else at right angles to it. Which of these two positions the sharpest retinal image assumes will depend upon *the distance at which the object is viewed.* Within a small range of short distances, lines lying at right angles to the meridian of greatest refraction will be most distinctly defined, but through a greater range of longer distances the sharpest lines will be parallel to it. At the first range of distances the retinal image of a circular disk is an ellipse, with its longer axis coincident with the plane of least refraction, while at the longer range the long axis of the ellipse will lie in the plane of greatest refraction. If the astigmatic difference be very great, the elliptical image will be narrowed almost to a line. At a certain point between the two ranges of distance mentioned, the image of the disk will be nearly circular, but bordered with colored fringes, of which the opposite quadrants will be red and intermediate ones blue. These facts suggested the following simple means of detecting, measuring, and fixing the astigmatism.

On a circular piece of white card-board are ruled two heavy, black, straight lines or bands, in such position that they will barely touch at one extremity and leave at the other ends a space about equal to the breadth of the lines. For viewing at a distance of eight or ten feet, the disk may be eight or ten inches in diameter, and the lines, crossing the middle of the disk, about three-sixteenths of an inch wide and the same distance apart at their separated extremities. The disk is to be pinned by its center to the wall, so as to give by its rotation any desired inclination to the lines. The margin of the disk is graduated into degrees, and a pin or mark on the wall at any desired point serves as the zero from which the astigmatic angle may be read.

When the lines are viewed by a normal eye at the proper distance, the white wedge-shaped space is seen to extend just to the ends of the black lines; if, however, any astigmatism exists, this appearance can only be realized when the lines are at some given inclination, depending upon the position of the plane of greatest refraction, while at right-angles to this position the white space is visible only a portion of the way, dependent upon the degree of astigmatism. It is only necessary to graduate the length of the lines into some scale of parts such that the reciprocals of the numbers shall express the degree of astigmatism. This may be easily done by a few experiments, in which Snellen's test-type may be referred to as a standard. Since, in determining the curvature of the cylindrical glasses required to neutralize the astigmatism, it is necessary either to make a calculation (involving the distance of the glass from the eye) or else to make a series of trial tests, it might be found practically expedient to graduate one side of the scale to correspond with the focal distance of the lowest glass that could render the whole space visible at the given distance and angle.

Where it is not desirable to relax the accommodation, we may use a disk on which two or more pairs of such double lines are drawn at different inclinations, so as to relieve the uncertainty arising from accommodative changes.

Art. III.—Case of Mal-Nutrition during Fetal Life.

By R. S. HARVEY, M. D., of Coalburg, West Va.

On March 10, 1873, I delivered Mrs. M——, æt. 20, after eight hours of severe labor, nothing occurring of any special importance, of a most singular malformed child.

The child had apparently been perfectly healthy during its intra-uterine existence; but strange to say, its liver, stomach, and indeed all of its abdominal viscera, were on the outer, instead of the inner side of the abdominal walls.

They were, or rather had been, nicely enveloped in the peritoneum, but during the last expulsive pains it had been ruptured transversely across the mass.

After attending to the mother, I carefully examined the protruded mass. The peritoneum covering the tumor was congested; the organs were all in a normal position, so far as their relation to each other was concerned. The mass was about eight inches in diameter, and was connected to the body, through an orifice of about two inches in diameter, at the site of the umbilicus, by a band of the mass, which consisted of esophagus, peritoneum, and gut.

The abdominal cavity was very much lessened in size, certainly in consequence of never having contained anything. The heart was drawn downward and toward the right, lying under the point of the sternum.

I showed and explained everything to the father, and though there was not sufficient room to make sufficiently lengthy incisions to admit of the return of the organs, I insisted on being permitted to make the attempt. He objected, and asked to postpone it for a few hours. Having no hopes for my little patient I consented. I accordingly visited it the next morn, but found the mass swollen to such a considerable extent, as to render it impossible to do anything toward replacing it.

It could not have been done in the beginning, as there was only about one inch from upper border of mass to ensiform appendix, and about the same to the arch of pubis.

I had attended the mother at various times during her gestation. She suffered very much, and constantly from pain in right inguinal region.

Had the abnormal condition of fetus anything to do with this pain experienced by the mother?

I neglected to mention that the child died at 12 M. of the day succeeding its birth, having lived eighteen hours.

Art. IV.—Bromide of Ammonium in Catamenial Excesses.

By J. K. BLACK, M. D., Newark, O.

A favorite remedy for dysmenorrhea, by a revered teacher in the New York University, the late Professor Bedford, was spiritus mindereri. In many cases of that disease its efficacy is undoubted. I had been led to use it somewhat freely from his teaching, but now think, after many years' trial, that for certainty and efficacy in controlling some forms of uterine derangement, the bromide of ammonium far excels, and should supersede its use. The remedy under consideration having the same base, with the addition of bromine—an agent which has a well-established value in the treatment of some forms of sexual excitement—on theoretical grounds it ought to exhibit peculiar power in the management of some sexual disorders of the female.

It appears to me, that the sexual emotions and the influence of the vaso-motor nerves on the functional derangements of the uterus have not received from the therapeutist the attention they deserve. The eccentric influence of the uterus in the production of various forms of sympathetic nervous derangements is well known; but the concentric influence of the emotions, and of associated excitements, upon the reproductive organs of the female, resulting in the production of various morbid conditions, has received only scant attention. In fact, aside from a bare enumerated statement in the etiological departments of some standard books, it is wholly ignored. The doctrine, in medical circles, seems to have a prevailing assent that the generative organs of the female may send numerous morbid impressions to almost every organ of the body, but seldom receive any great harm from these organs in return. It is difficult to account for this, except on the theory of the uterus and appendages being regarded as a focus around which the whole system of woman centers—a part of her which noticeably influences, but is little influenced by, other parts of the body. That the circulation and excretory functions of the female generative organs are mainly under the control of the sympathetic and vaso-motor nerves appears to me incontestible. No disturbance of function is more common than the menstrual during the progress of general or distantly localized diseases; and in certain erotic, emotional states. especially after entering the marital relation, is it altogether exceptional from some unusual aberration of the catamenial function, not to show itself.

In considering these facts, as well as many others which will readily occur to the reader, of a like import, it appears that the rational mode of controlling certain excesses of the catamenia should be by aiming to remove the conditions upon which these excesses depend. Sometimes this may be from a mere atony or relaxation of the vessels, sequels of inflammation or ulceration, or from an abnormal condition of the blood itself, but more frequently is a too frequent or an excessive flow of the menses due, especially in its inception, to a too great excitation of the vaso-motor nerves. Whenever this is the case, there is no remedy at all comparable with the bromide of ammonium in controlling the morbid condition. When, without any other obvious causes, the blood being properly organized, the uterine surface not in a state of chronic inflammation or ulceration, there is a too frequent or redundant flow of the menses, either fault will readily yield to the proper administration of this remedy. It appears to act by a direct influence upon the vaso-motor nerves of the generative system, whereby excitement and blood determination are lowered and lessened, and so tend at once to the establishment of the normal standard.

I have so often tested the efficacy of this preparation in non-structural catamenial excesses that I can speak with confidence of its remarkable powers. No more certainly do I anticipate the arrest of an attack of ague by the administration of quinine than do I anticipate the control of the forms of catamenial excess, to which I have referred, by the proper administration of the bromide of ammonium.

The other day I visited a young, unmarried lady, who had, for years, been subject to protracted and excessive, though regular catamenial flows. Of late she had displayed serious indications of tubercular disease of the lungs, and in treating her for this my attention was drawn to the old and exhausting monthly flows. I am not aware that this excess had ever been mentioned to a previous medical attendant, or that any attempt had ever been made to control it. As the flow usually lasted from a week to ten days, and was quite profuse, it appeared very desirable that its duration and amount should be curtailed, in order to preserve the system, under its new danger, against such a source of exhaustion. Accordingly she was put under the bromide, as follows: ℞ Bromid. ammon. ℥j; syr. aurantii, aqua, ăă ℥iij. M. Sig. A tea-spoonful before tea and at bed-time, commencing ten days before expected period and continue through it.

Under this treatment, her mother informed me that she had been a great deal better during the last two periods than had been the case for years.

In the administration of the remedy an essential rule is, that its use shall precede the expected period by at least ten days. Its administration only during the crisis will do very little, if any good. The sedative influence of the remedy must precede and accompany the stage of ovarian and uterine vascular engorgement, which itself preceded the flow by several days.

Some writers have spoken quite favorably of the remedy in dysmenorrhea and menorrhagia, administered in the usual manner; that is, during the crisis only. Having been frequently called to see cases of these disorders during their progress, I have failed to observe any very satisfactory evidence of its controlling power while administered only during the emergency. But when administered according to the above directions, it has not only, almost without exception, lessened a regular monthly excess, but it has, in appropriate cases, in quite a number of instances which I can recall to memory, changed a two-week into a four-week crisis.

It is only necessary to say to the inexperienced practitioner, that any associated disorder, which has even a remote bearing upon the menstrual excess, should receive appropriate attention, else the controlling power of the bromide may be more or less uncertain or transitory in its beneficial effects.

Art. V.—Case of Spina Bifida.

By HENRY HODGE, M. D., of Mouth of Wolf, Tenn.

CASE.—S. G., age 26; mother of five children, four sons and one daughter. She felt unusually well during pregnancy, and was delivered, by an easy labor, of a male child weighing nine pounds, at first sight a fine, healthy boy. On examination, a large sore was discovered in the lumbar region, beginning about the second lumbar vertebra and extending as low down as the sacrum, with complete absence of the spinous processes of the four lower lumbar vertebræ, and presenting a healthy, granulating appearance. Upon close examination, complete paralysis of the lower extremities was discovered. There was also a considerable effusion of serum into the tunica vaginalis, constituting hydrocele, the scrotum being as large as a turkey egg and very tender. There was not the least symptom of hydrocephalus, notwithstanding the openings of the head were all twice as large as usual. The child frequently made efforts to cry, but has never been able to produce a sound per orem up to this date, it being now seventeen days old; and has never been able to draw milk from the breast, having tried several women besides its mother, though it takes it heartily from the nursing-bottle. It is every day losing flesh, and at the date of this writing is reduced almost to a mere skeleton. The abscess is gradually filling up and diminishing in circumference, and the paralysis is slightly improved. The other symptoms remain unchanged.

I forgot to state that there has been, from the first, such relaxation from the sphincter ani that every thing swallowed seems to pass immediately out at the anus. The treatment consisted in five drops of the syrup of the iodide of iron put in one ounce of water. One drachm of this solution was given ter in die in milk from the nursing-bottle. The local treatment consisted in the application of basilicon ointment and protection from atmospheric contact.

Now, what could have produced this granulated sore at birth? The mother has no knowledge of receiving any shock or injury during gestation, nor did she suffer from any mental trouble or receive fright from any source. On the contrary, she had been unusually buoyant and healthy. Her husband has been given to intemperance for two years, that is, a regular drinker, keeping his blood constantly hot with whisky. But whatever was the cause primarily of this congenital malformation, there must have been a separate or secondary cause of the suppuration of the cyst some time before birth, together with an effort of nature to repair the injury.

Art. VI.—Of a late Epidemic of Child-bed Fever; together with an Inquiry into the Connection, said to exist, between Puerperal Fever and Erysipelas.

By THOMAS C. MINOR, M. D., Cincinnati, Ohio.

[*Continued.*]

At Lambertsville, latitude 40° 23′, longitude 74° 55′, and at an altitude above the sea-level of 95 feet, the monthly temperature is as follows: January, 30.4°; February, 30°; March, 38.8°; April, 49.5°; May, 60.4°; June, 69.3°; July, 74.7°; August, 71.9°; September, 63.9°; October, 51.6°; November, 41.8°; December, 32°—giving a mean annual of 51.2°; or, reading by seasons, as follows: Spring, 49.6°; summer, 72°; autumn, 52.4°; winter, 30.8°. At Lambertsville the mean annual rain-fall at the different seasons is as follows: Spring, 11.25 inches; summer, 12.15; autumn, 11.59; winter, 9.67—giving an annual of 44.9 English inches of rain and melted snow.

Study of the Table.—The mortality in New Jersey, for the year 1870, from erysipelas, was 62, out of a total population of 906,096. During the same year there were nine deaths from puerperal fever. As regards sex, the decedents from erysipelas were equally divided, *i. e.* 31 males and the same number of females. Of the decedents, 54 were whites and native born, and 8 were foreigners. Of the decedents from puerperal fever, 6 were native born and 3 (33⅓ per cent.) were foreigners. The season of greatest mortality from erysipelas was spring (22); the season of greatest mortality from puerperal fever was winter (4). The month of greatest mortality from erysipelas was March (10); the month of greatest mortality from puerperal fever was February (3).

Reflections.—In proportion to population the mortality from erysipelas in New Jersey was not excessive. Puerperal fever evidently had no connection with erysipelas, and all the cases of fever must have been sporadic ones. Out of a total foreign population of 188,943 (96,187 males and 92,756 females), only 8 died of erysipelas. The mortality from this disease was greater among the native than among the foreign born. On the contrary, more foreign born died from puerperal fever, in proportion to population, than native born. Out of a total colored population of 30,658 (15,064 males and 15,594 females), no deaths from either disease seem to have occurred. As before stated, no records of epidemic erysipelas or puerperal fever prevailing in New Jersey are available.

PENNSYLVANIA.—With an area of 46,000 square miles, the State of Pennsylvania extends from east to west between the latitudes of about 39° 45′ and 42°, and from near longitude 75° to about 80° 30′ west, and had a population, according to the last census, of 3,521,951 souls. According to Mitchell, "The eastern portion of the state is mostly level, the center is mountainous, the western part is moderately hilly." A hypsometric sketch of the state shows an elevation varying from a few hundred to several thousand feet above the level of the sea. The higher ground is near the central portion of the state, where the Blue Ridge and Alleghany Mountains cross from northeast to southwest.

In the city of Philadelphia, at the "Pennsylvania Hospital" (latitude 39° 56′, longitude 75° 12′, and altitude above the sea-level of 40 feet), the mean monthly temperature, according to Blodgett, reads as follows: January, 31.8°; February, 32.3°; March, 41°; April, 51.8°; May, 62.5°; June, 71.5°; July, 76°; August, 73.2°; September, 63.8°; October, 54.5°; November, 44°; December, 34.5°—giving an annual mean of 53.1°. At Germantown, in southeastern Pennsylvania, not far from Philadelphia (latitude 40° 03′, longitude 75° 10′, and altitude of 70 feet above the sea-level), as follows: January, 30°; February, 31.1°; March, 41.2°; April, 49.4°; May, 61.3°; June, 71.2°; July, 75°; August, 73°; September, 65°; October, 53.5°; November, 42.6°; December, 32.6°—giving an annual mean of 52.3°. At Lancaster (latitude 40° 02′, longitude 76° 21′, altitude 300 feet above the sea-level), as follows: January, 30.1°; February, 32.4°; March, 40.7°; April, 52.1°; May, 60°; June, 68.4°; July, 73.4°; August, 71.8°; September, 64.7°; October, 52.1°; November, 39.6°; December, 32.2°; or a mean annual of 51.4°. At Pittsburgh, in the extreme western portion of the state, latitude 40° 32′, longitude 80° 02′, altitude 704 feet above the level of the sea), as follows: January, 29.1°; February, 31.2°; March, 39°; April, 50°; May, 60.9°; June, 69.2°; July, 73°; August, 71.2°; September, 63.6°; October, 50.9°; November, 39.8°; December, 31.3°; or a mean annual of 50.8°. Calculated by seasons the temperature reads as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.
Philadelphia	51.8°	73.6°	54.1°	32.9°
Germantown	50.6	73	53.7	31.9
Lancaster	50.9	71.2	52.1	31.6
Pittsburgh	50	71.4	51.4	30.6

It will be noticed that I have chosen stations from east to west, in the southern part of the state, near latitude 40°, for the reason that the larger cities and towns of the state are in the neighborhood of this parallel; and, besides, the isothermals of Southern New York, before given, might answer for Northern Pennsylvania, in this rough calculation. The mean fall of rain and melted show at the various seasons reads as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Philadelphia.......	10.97	12.45	10.07	10.06	43.56
Germantown	8.56	10.95	9.78	8.81	38.10
Pittsburgh..........	9.38	9.87	8.23	7.48	34.96

It will be noticed that there is a diminished rain-fall from east to west, and that the temperature at the different seasons, along the neighborhood of the 40th parallel, becomes lower from east to west.

Study of the Table.—The mortality (during the census year 1870) from erysipelas, in the State of Pennsylvania, was 282, out of a total population of 3,521,951 persons. During the same time 108 women died of puerperal fever. In regard to sex, 154 of the decedents from erysipelas were men and 128 were women. Of the decedents from erysipelas, the nativity of 2 was unknown; 242 were native born, of whom 5 were colored; and 38 were foreigners. Of the decedents from puerperal fever, 77 were native born (one of whom was colored), and 31 were foreigners. I shall arrange their nativity as follows:

NATIVITY.	ERYSIPELAS.	PUERPERAL FEVER.
Ireland	18	18
Germany	9	8
England and Wales.........	8	4
Scotland	1	1
North of Europe..............	2	0
Total..................	38	Total............. 31

The season of greatest mortality from erysipelas was spring (83). The season of greatest mortality from puerperal fever was spring (44). The month of greatest mortality from erysipelas was April (34). The month of greatest mortality from puerperal fever was May (17).

Reflections.—In proportion to population the State of Pennsylvania suffered less from erysipelas than most of the states before-mentioned. The same may be said in regard to puerperal fever. It is evident that no extensive epidemic of either disease could have prevailed. Out of a total foreign population of 544,859 (289,946 males and 254,913 females), 38 died of erysipelas: so the mortality from this disease was greatest among the native born.

On the contrary, the mortality from puerperal fever was greatest among the foreign born, almost one-third the decedents being foreigners. Out of a total colored population of 65,294 (31,077 males and 34,217 females), five died of erysipelas and one of puerperal fever. Philadelphia is responsible for most of the mortality; and from statistics culled from a report* of the "Board of Health" of that city in 1872, we gather the following: "*Erysipelas.*—81 deaths were reported from this cause, an excess of 24 over the number registered in 1871; 42 were of males and 39 were of females. March (15) and April (11) were the months of greatest mortality, and September (1) of the least mortality. The deaths in each season were as follows: Spring, 32; summer, 16; autumn, 11; winter, 22." We observe that the same report gives the deaths from puerperal fever in 1872 as being 22. The years 1871 and 1872 were the years of the small-pox epidemic, and as in the declining of small-pox, erysipelas very frequently supervenes, the light mortality for the latter disease should be especially noted. The epidemics of puerperal fever in the State of Pennsylvania have been before noted (refer to Meigs and Churchill); also those epidemics of erysipelas which occurred at Uniontown and Laurel Mount (refer to Drake).

We shall now turn to the little State of Delaware.

DELAWARE.—Lying between longitude 75° and 76°, and crossed about its central portion by the 39th parallel of north latitude, is the State of Delaware. This state is only 95 miles long and 25 miles wide. The county of New Castle, in North Delaware, is "hilly and rocky;" then comes the red-clay region of Kent county, and in Sussex, the far southern county, is the "level, sandy" part of the state. A hypsometric sketch of the state shows that it has not an elevation of 400 feet above the sea-level at any point. According to Blodgett, the mean monthly temperature at Fort Delaware (latitude 39° 35′, longitude 75° 34′, altitude 10 feet above the sea-level), reads as follows: January, 33.7°; February, 35.8°; March, 43°; April, 52.3°; May, 65.3°; June, 73.8°; July, 70.8°; August, 70.6°; September, 70.9°; October, 58°; November, 46.6°; December, 39.3°—giving a mean annual of 56.1°; or, reading by seasons: Spring, 53.5°; summer, 75.9°; autumn, 58.5°; winter, 36.3°. I can find no record of the mean fall of rain and melted snow in the State of Delaware.

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* Report of the Board of Health of the City and Port of Philadelphia, 1873, p. 57.

Dr. Bush* speaks of no epidemics of erysipelas or puerperal fever in his little monograph on the epidemics of the state. Dr. Marshall, of Milford, Delaware (quoted by Bush), says: "We have had our usual amount of pneumonia, rheumatism, and erysipelas, and no more."

Study of the Table.—Out of a total population of 125,015, Delaware lost 12 persons from erysipelas during the census year 1870, and only 1 person from puerperal fever. As regards sex, the decedents from erysipelas were equally divided (6 males, 6 females), and 11 of them were native-born whites and 1 native-born colored. The death from puerperal fever was a native-born white woman. The season of greatest mortality from erysipelas was autumn (6). The only death from puerperal fever was in March. The months of greatest mortality from erysipelas were October, November, and December (3 each).

Reflections.—It is noticed that three-fourths of the mortality from erysipelas occurred during three months. Taking the small population, and knowing the slight rate of mortality from erysipelas, it looks as though there might have been a slight epidemic tendency during that year. If there was, however, it must have been very slight; and no possible connection could have existed between the disease in question and puerperal fever: for we see only one sporadic case of the latter, and it occurred in a month when no deaths from erysipelas were reported (March). Nearly one-sixth of the population of Delaware is colored (*i. e.* 22,794—11,480 males and 11,314 females); therefore more whites than blacks, in proportion to population, died of erysipelas. Out of a total foreign population of 9,120 (4,657 males and 4.463 females), there were no deaths from either disease, the native born seeming to be the only sufferers.

RESUME.—Guyot gives a general description of the "Middle States" in the following language: "These states lie in the middle part of the Appalachian mountain region, extending from Lake Champlain to Lake Erie, and from the Atlantic to the Ohio river. The Appalachian mountains extend through this section from northeast to southwest, in long parallel ranges, separated by broad and very fertile valleys. The principal ranges of the system are the Blue Ridge and Alleghany range, between which are several lower ranges. All the ranges are broken by frequent cross-valleys or gorges. Through these the rivers find their way, from the Alleghany range and the plateau at its western base, across the entire system to the Atlantic ocean. East of the mountains a *hilly country* extends about half-way to the sea. Beyond this is a low, flat *coast district*, which is either sandy or marshy. West of the mountains is a low plateau, which descends westward to the low plains of the Mississippi." A hypsometric sketch of this section shows an elevation varying from a few hundred to several thousand feet above the sea-level.

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* Report on the Climatology and Epidemic Diseases of Delaware. By L. P. Bush, M. D. Transactions of the American Medical Association, Vol. XXIII, 1872.

Study of the Table.—It will be noticed that the total mortality, for the census year 1870, in the "Middle States," from the single cause of erysipelas alone was 811. During the same time 353 women died of puerperal fever. As regards sex, the decedents from erysipelas numbered 444 males and 367 females. The season of greatest mortality from erysipelas was spring (271). The season of greatest mortality from puerperal fever was spring (136). The month of greatest mortality from erysipelas was April (95). The month of greatest mortality from puerperal fever was March (53).

Reflections.—The population of the "Middle States" is over 9,000,000. On a rough estimate, then, the mortality from erysipelas in the "Middle States," in proportion to population, is about the same as in New England. On the contrary, the mortality from puerperal fever in the Middle States exceeds that of the New England States, in proportion to population, by almost one-third. The erysipelas prevails more among the native than the foreign born, and puerperal fever much more among the foreign than the native born. More that 50 per cent. of the puerperal fever decedents, it will be noticed, were foreigners. It will be also noticed that the spring was the season when both diseases were most prevalent, and that the greatest mortality, occurring in March, was followed in April by the greatest mortality from erysipelas. The annual isothermals of 48° and 52° cross the Middle States—the latter, however, being as far south as the neighborhood of Philadelphia, but nearer to Harrisburg, Pennsylvania.

Let us now turn to the more genial and warmer climes of the ever "Sunny South," to Maryland.

MARYLAND.—Lying between latitudes 38° and 40°, and extending from longitude 75° to almost 80° west from Greenwich, at its northern boundary, is the State of Maryland, with a population, according to the last census, of 780,894 souls. The state is split in two, as it were, by the Chesapeake Bay, which separates it into two portions, known as the "Eastern" and "Western Shores." According to Dr. Wroth,* "The region known as the Eastern Shore of Maryland is bounded on the north by Mason and Dixon's line, on the east by the State of Delaware, on the west by the Susquehanna river and the Chesapeake Bay, and on the south by Accomack county, in Virginia. It embraces the counties of Cecil, Kent, Queen Anne's, Talbot, Caroline, Dorchester, Somerset, and Worcester." At what is known as the "Peninsula," from the town of Warwick (Cecil county), extends the level, swampy lands known as the "Forest"—in fact, this whole "Eastern Shore" has no considerable elevation above the level of the sea at any point, as a hypsometric sketch of the state would show. The equability of temperature for this latitude is charming. It has been said, that in forty years the snow-fall has not reached an average of six inches annually (Wroth). Dr. Waters,† of Baltimore, gives a description of the "Western Shore" counties, as, for instance, Frederick, Carroll, Harford, and Baltimore counties. From him we learn, "That portion of it which forms the shore of Chesapeake Bay is but little elevated. As it recedes westwardly, the land rises until it reaches a height of about three hundred feet above tide-water," etc., etc. No epidemics of either erysipelas or puerperal fever are spoken of in this report. Speaking of bilious endemic fever, our writer remarks: "Many more cases, however, occur in winter and spring; and the pneumonia and *erysipelas* of those seasons are accompanied by a *typhous* grade of fever;" from whence we should judge that erysipelas is not an uncommon complaint in Maryland. At Baltimore (latitude 39° 18′, longitude 76° 36′, altitude 80 feet above the sea-level), according to Blodgett, the mean monthly temperature reads as follows: January, 30.9°; February, 33°; March, 39.2°; April, 52.1°; May, 60.6°; June, 70.9°; July, 75.2°; August, 74.7°; September, 66.6°; October,

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* Report on the Medical Topography of the Eastern Shore of Maryland. By P. Wroth, M. D. Transactions of the American Medical Association, Vol. IX, 1856, p. 566 et seq.

† Report on the Medical Topography and Epidemics of Maryland. By E. G. Waters, M. D., Baltimore. Transactions of the American Medical Association, Vol. X, 1857, p. 55 et seq.

54.9° ; November, 44.3° ; December, 34.4°. At Frederick (latitude 39° 24′, longitude 77° 18′, and altitude of 700 feet above sea-level), as follows: January, 32.8°; February, 32° ; March, 39.8° ; April, 52.6° ; May, 65.2° ; June, 72.4° ; July, 79.9° ; August, 74.8° ; September, 69° ; October, 53.6° ; November, 44.5° ; December, 33.3°. At Annapolis, (latitude 38° 58′, longitude 76° 27′, altitude 20 feet above the sea-level), as follows : January, 32.3° ; February, 35.4° ; March, 42.8° ; April, 54.1° ; May, 64.5° ; June, 72.7° ; July, 77.2° ; August, 76.1° ; September, 68.8° ; October, 57.6° ; November, 46.8° ; December, 36.7° These stations I have selected to show the various climates of the state by seasons and annually. They read as follows :

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Baltimore...........	50.6°	73.6°	55.3°	32.8°	53.6°
Frederick	52.5	75.7	55.7	32.7	54.1
Annapolis...........	53.8	75.3	57 8	34.8	55.4

At Baltimore the fall of rain and melted snow by seasons is as follows: Spring, 9.56 ; summer, 11.81 ; autumn, 10.63 ; winter, 8.98—year, 40.98 English inches.

Study of the Table.—Out of a total population of 780,894, sixty-three persons died, in Maryland, in 1870, from erysipelas alone. During the same time 19 persons died from puerperal fever. As regards sex, the decedents from erysipelas consisted of 29 males and 34 females, of whom the nativity of one was unknown ; 60 were native born (53 whites and 7 colored), and 2 foreign born. Of the decedents from puerperal fever, 17 were native born (16 whites, 1 colored), and 2 foreign born. The season of greatest mortality from erysipelas was spring (22). The season of greatest mortality from puerperal fever was spring (8). The month of greatest mortality from erysipelas was February (8). The month of greatest mortality from puerperal fever was April (5).

Reflections.—In proportion to population there seems to have been no excessive mortality from either disease in Maryland, as compared with states before named of about the same population. Maryland has a colored population of 175,391 (85,123 males, 90,268 females). On a rough calculation, then, not quite one-fifth the total population is colored ; from whence we see that the mortality from both diseases is much greater in Maryland amongst the white population. Maryland has a foreign-born population of 83,412 (42,748 males and 40,664 females). Roughly calculating this at less than one-tenth the total population, we see that the foreign born suffer much less from erysipelas than the native born, and that they suffer to about the same degree, in proportion to population, as the native born from puerperal fever. The large city of Baltimore no doubt is accountable for the most of the mortality in this state.

Let us now turn to the "Old Dominion."

VIRGINIA.—Lying between the latitudes of about 36° 30′ and 39° 30′, and extending from longitude 76° to about 83° west from Greenwich at its southern boundary, is the State of Virginia.

According to Mitchell, "The Blue Ridge and Alleghany Mountains extend through the middle of the state in a northeast and southwest direction." Looking at a hypsometric sketch of the state, we see it gradually rising from a sea-level, on the Atlantic coast, to 400 feet or more; then to 600 or 700 feet toward the center of the state; and finally, to an altitude of several thousand feet in the western or mountainous portion of the state.

According to Blodgett, at Alexandria (Fairfax county), in the northeastern part of the state (latitude 38° 50′, longitude 77° 10′, altitude 50 feet above the sea-level), the monthly temperature reads as follows: January, 31.5°; February, 34.3°; March, 43.4°; April, 53.7°; May, 65.3°; June, 73.8°; July, 78.6°; August, 76°; September, 67.9°; October, 53.8°; November, 47°; December, 35.2°. At Charlottesville, near the northern center of the state (latitude 38° 12′, longitude 78° 23′, altitude 150 feet above the sea-level): January, 40.8°; February, 43.1°; March, 46.5°; April, 52.4°; May, 59.5°; June, 72.2°; July, 76.3°; August, 74.3°; September, 65.2°; October, 60.2°; November, 48.3°; December, 39.2°. At Lewisburg (latitude 37° 49′, longitude 80° 28′, altitude 1,800 feet above sea-level), in West Virginia, and near the state line, as follows: January, 35.4°; February, 34.2°; March, 44.4°; April, 53.8°; May, 64.9°; June, 69°; July, 77.1°; August, 73.9°; September, 68.8°; October, 53.5°; November, 45°; December, 35.4°. At Millersburg, in Southwestern Virginia (latitude 37° 05′, longitude 81° 40′, altitude 150 above the sea-level, as follows: January, 32.9°; February, 43 2°; March, 46.4°; April, 61.2°; May, 66.2°; June, 77.9°; July, 82.2°; August, 78.1°; September, 70.9°; October, 57.2°; November, 44.8°; December, 38.3°. These stations, reading by seasons and annually, may be thus arranged in the same manner as I have arranged the preceding ones, to wit:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Lewisburg..........	54.4°	73.3°	55.8°	35°	54.6°
Alexandria.........	54.1	76.2	56.2	33.7	55
Charlottesville.....	52.8	74.3	57.9	37.7	55 7
Millersburg.........	58.1	79.4	57.6	38.2	58.3

The fall of rain and melted snow, by seasons, in the northeastern and southeastern parts of the state, is as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Alexandria.........	8.59	11.18	8.13	8.00	36.30
Norfolk..............	9.77	15.08	10.16	10.17	45.18

All in English inches.

Study of the Table.—Out of a total population of 1,225,163, Virginia suffered a mortality of 73, from the single cause of erysipelas, during the census year 1870. During the same period 69 women died of puerperal fever. As regards sex, 34 of the decedents from erysipelas were males and 39 females; 72 were native born (54 whites and 18 colored), and one was a foreigner (German). All the decedents from puerperal fever were native born (46 whites, 23 colored). The season of greatest mortality from erysipelas was spring (24). The season of greatest mortality from puerperal fever was spring (28). The month of greatest mortality from erysipelas was May (9). The month of greatest mortality from puerperal fever was May (12).

Reflections.—The two diseases appear to have been most prevalent about the same time; but no epidemic could have occurred. In proportion to population, the mortality from erysipelas seems not to have been as great as in colder latitudes—New England, for instance; while, on the contrary, deaths from puerperal fever seem to be more common in Virginia than in Massachusetts. Virginia has a total colored population of 512,841 (248.228 males and 264,613 females); from whence it will be seen that the mortality from both diseases is greater among the white population than among the colored. The foreign population of the state is only 13,701 (7,984 males and 5,717 females). The erysipelas epidemic of 1844–45 reached Southern Virginia (Drake). Richmond undoubtedly contributes a large share to the mortality list of the two diseases under discussion.

Now turn we to the "Good Old North Carolina State."

NORTH CAROLINA.—Dr. Dickson,* in his elaborate memoir, says: "The State of North Carolina, embracing an area of more than fifty thousand square miles, extending from 34° to 36° 30′ of north latitude, and from longitude 1° 30′ east to 7° west of Washington, and from the Atlantic ocean on the east to the Alleghany Mountains on the west, would seem to possess a sufficiently wide range of geological, meteorological, and climatic conditions to give origin to no inconsiderable variety of diseases." "On the eastern or Atlantic border of the state there is an extensive region of low, swampy, alluvial formation, but little elevated above the level of the ocean, which, as the country recedes from the coast, merges into a wide, flat sandy region of somewhat higher level, covered with extensive forests of pine, and gradually increasing in elevation until the head of navigation of its principal rivers is reached, when the face of the country becomes rolling and hilly and the pine forests abruptly disappear," etc , etc. "The mountainous region of the state, as indicated by recent surveys, embraces the highest elevation of any portion of North America east of the Rocky Mountains," etc. "Another remarkable peculiarity of this mountain region of the State of North Carolina is the existence of a belt or zone which is characterized by an entire exemption from frost. Frost occurs both above and below this remarkable zone, and the strange spectacle is sometimes presented of vegetation blighted by frost both at the base and apex of the mountain, while the intermediate region presents to the eye the blooming verdure of spring. Here fruit falling from the tree needs no protection during the winter; here the vine flourishes in great perfection," etc., etc. A hypsometric sketch of the state shows the eastern portion to have an elevation varying from a few feet to 300 or 400; a central portion from 400 to 800 feet, and a western portion from 1,000 to 2,000 feet above the sea-level. The highest ground is Mount Buckley, which is 6,775 feet in height, being the tallest peak east of the Mississippi river.

According to Blodgett, the mean monthly temperature at Beaufort (latitude 34° 41′, longitude 76° 40′, altitude 20 feet above the sea-level), on the Pamlico river, not far from the sea-coast, reads as follows: January, 45.2°; February, 44.1°; March, 49.5°; April, 60°; May, 68.9°; June, 76.9°; July, 79.8°; August 78.9°; September, 74.6°; October, 64.4°; November, 56.5°; December, 48°.

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* Report on the Medical Topography and Epidemics of North Carolina. By James H. Dickson, M. D. Trans. Amer. Med. Association, Vol. XIII, 1860, p. 273.

At Smithville, in the extreme southeast of the state, on the coast (latitude 34°, longitude 78° 05′, altitude 20 feet above the sea-level), as follows: January, 49°; February, 50.5°; March, 56.3°; April, 64.2°; May, 72.8°; June, 78.9°; July, 81.5°; August, 80.2°; September, 76°; October, 67.1°; November, 59.2°; December, 52.2.° At Chapel Hill, in the northern center of the state (latitude 35° 54′, longitude 79° 17′, altitude 570 feet above the sea-level), as follows: January, 41 5°; February, 43.7°; March, 51.1°; April, 59.5°; May, 67.3°; June, 74.7°; July, 78.2°; August, 75.9°; September, 70.5°; October, 59.4°; November, 51°; December, 43.3°. Reading by seasons, they may be arranged as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Chapel Hill........	59.3°	76.3°	60.3°	42.8°	59.7°
Beaufort............	59.5	78.5	65.2	45.7	62.2
Smithville..........	64.5	80.2	67.4	50.6	65.7

The mean fall of rain and melted snow at Fort Johnson* was as follows: Spring, 6.83; summer, 15.52; autumn, 16.32; winter, 7.34; year, 46.01—all in English inches.

Study of the Table.—Out of a total population of 1,071,351, the mortality from the single cause of erysipelas alone in North Carolina, in the census year 1870, was 52. During the same period 52 women perished from puerperal fever. As to sex, the decedents from erysipelas numbered 24 males and 28 females, all of whom were native born, 45 being white and 7 colored. The decedents from puerperal fever were also all native born, 35 being white and 17 colored. The season of greatest mortality from erysipelas was summer (16). The season of greatest mortality from puerperal fever was winter (18). The month of greatest mortality from erysipelas was August (8). The month of greatest mortality from puerperal fever was February (9).

Reflections.—In proportion to population the mortality from erysipelas is less than in New England latitudes, but the mortality from puerperal fever is more. No extensive epidemic of either disease could have occurred, and no connection could possibly have existed between the two diseases, as the season of greatest mortality from puerperal fever was the season of least mortality from erysipelas. North Carolina has a colored population of 391,650 (192,418 males and 199,232 females). This would be in the neighborhood of one-third the total population; from whence we see that erysipelas was most fatal to the white population, and that puerperal fever was as fatal among the colored population as among the whites. Epidemics of erysipelas are far from being uncommon in North Carolina, and the disease has been several times noticed as a complication of catarrhal fever and cerebro-spinal meningitis. Dr. J. J. Summerwell (quoted by Dickson) says: "An occasional case of cerebro-spinal meningitis I have now and then seen, during my whole professional career (of fifteen years); but only during the spring of 1856 have I observed this disease to assume anything of an epidemic character. At that time, however, during the months of March and April more especially, there was a great prevalence of what we had been accustomed to call *catarrhal* fever," etc., etc. "The manifestation of disease on the skin was unmistakably erysipelatous in its character, and gives a satisfactory clue to the nature of the epidemic. A large proportion of the cases terminated with a slight erysipelatous eruption on the face," etc., etc. The doctor then goes on to speak of how the more serious cases were affected: "In these were developed all the leading symptoms of cerebro-spinal meningitis," etc., etc. "Cerebro-spinal meningitis, occurring under the most favorable circumstances, is a very fatal disease; but, as it presented itself in this epidemic, not one well-marked and well-authenticated case recovered out of some twenty cases occurring in the practice of physicians of Salisbury." Dr. Dickson himself then goes on to state that, "Since the year 1856 erysipelas has prevailed more extensively in Rowan and Cabarrus counties than was ever known before; but cases of cerebro-spinal meningitis in any way connected with it have seldom occurred, but whenever it has supervened in erysipelas it has been alike fatal—proving an opprobrium to the healing art," etc., etc. "The question of why this form of inflammation of the brain should be so much more fatal than the ordinary epidemics of cerebro-spinal meningitis, as they have prevailed in this country and in Europe, which are described in books, finds, in my mind, a satisfactory answer in the nature of erysipelatous inflammation," etc. It is significant, in this connection, that no reference is made to puerperal fever. The natural query would be, Why was not an increase of puerperal fever noted during this epidemic? Here evidently the two diseases did not prevail at the same time.

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* Government Report, loc. cit.

We now turn to South Carolina.

SOUTH CAROLINA.—This state has found an able medical historiographer in Dr. Manning Simons,* of Charleston. It is from this gentleman's report that we cull the following extract: "Wedged in between North Carolina on the north and northeast, and Georgia on the west, it is bounded on two sides of the triangle which constitutes its figure by water—the Atlantic ocean on the east and southeast, and the Savannah river on the west. It lies between 30° 4′ 30″ and 35° 12′ north latitude, and 78° 25′ and 83° 40′ west longitude from Greenwich, and covers an area of about 30,000 square miles. The physical features of the country vary with the proximity or distance from the coast of the different sections. Passing from the coast line north-northwest, the country is flat, and rises in an almost evenly gradual ascent until the mountains are reached, when a height of 3,000 or 4,000 feet is attained at their highest point." Dr. Simons refers to no epidemics of erysipelas or puerperal fever occurring in the state.

According to Blodgett, the mean monthly temperature at various points in the state reads as follows: At Camden (latitude 34° 17′, longitude 80° 33′, altitude 275 feet above the sea-level): January, 45.1°; February, 48.5°; March, 56°; April, 61.5°; May, 71.4°; June, 76.4°, July, 80.5°; August, 78.4°; September, 74.3°; October, 61.8°; November, 52.6°; December, 46.3°. At Charleston (latitude 32° 45′, longitude 79° 51′, altitude 20 feet above sea-level): January, 50.3°; February, 52.4°; March, 58.7°; April, 65.4°; May, 73.4°; June, 79°; July, 81.7°; August, 80.9°; September, 76.9°; October, 67.9°; November, 59.5°; December, 52.5°. Reading these two stations by seasons, it would be thus:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Camden.	63°	78.4°	62.9°	46.6°	62.7°
Charleston	65.8	80.6	68.1	51.7	66.6

The annual fall of rain at Charleston in seasons reads about as follows: Spring, 8.60; summer, 18.68; autumn, 11.61; winter, 9.40; year, 48.29, in English inches.

Study of the Table.—Out of a total population of 705,606, the decedents from erysipelas in the census year 1870, in South Carolina, numbered 21. During the same period 15 women died from puerperal fever. As regards sex, the decedents from erysipelas were males, 11; females, 10; of these 20 were native born (11 white, 9 colored), and 1 French. All the decedents from puerperal fever were native born (3 white and 12 colored). The season of greatest mortality from erysipelas was winter (8). The season of greatest mortality from puerperal fever was spring (8). The month of greatest mortality from erysipelas was May (4). The months of greatest mortality from puerperal fever were January, March, and April (each 3).

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* Report on the Climatology and Epidemics of South Carolina. By Manning Simons, M. D., Charleston, South Carolina. Transactions of the American Medical Association, Vol. XXIII, 1872, p. 275 et seq.

Reflections.—In proportion to population, the mortality from both diseases seems to be less in South Carolina as compared with the Southern States heretofore given. 281,894 of the population of South Carolina are colored; of these 136,275 are males and 145,619 are females. This is more than one-third the entire population. From this it will be seen that far more blacks than whites, in proportion to population, died of both diseases. The foreign population, as in the case of North Carolina, is so small that no mention need be made to it at this point. I shall, however, dwell on the prevalence of both diseases among the whites and blacks, and among the native-born and foreign-born populations, in my final summary and conclusions.

And next appears Georgia.

GEORGIA.—Lying mostly between 30° 30′ and 35° north latitude, and extending from 81° to almost 86° longitude west from Greenwich, is the State of Georgia. A hypsometric sketch of the state shows that most of it has an altitude of less than 400 feet above the sea-level. In the northwestern part of the state the land becomes higher in the neighborhood of Atlanta, in the mountainous part of the state. At Savannah, on the coast (mouth of Savannah river), in Southeastern Georgia (latitude 32° 05′, longitude 81° 7′, altitude 45 feet above sea-level), the mean monthly temperature, according to Blodgett, reads as follows: January, 52.2°; February, 54.5°; March, 60.4°; April, 67.7°; May, 74.8°; June, 79.6°; July, 81.9°; August 81.2°; September, 76.9°; October, 67.2°; November, 58.6°; December, 51.5°. At Augusta (latitude 33° 28′, longitude 81° 53′, altitude 550 feet above the sea-level), as follows: January, 46.7°; February, 50.7°; March, 55.8°; April, 65.1°; May, 72.2°; June, 79°; July, 81.9°; August, 79.7°; September, 72.8°; October, 63.5°; November, 53.8°; December, 46.8°. At Sparta (latitude 33° 17′, longitude 83° 9′, altitude 550 feet above sea-level), as follows: January, 46.3°; February, 45.2°; March, 56.7°; April, 61.7°; May, 72.3°; June, 76.2°; July, 81.6°; August, 79.6°; September, 76.3°; October, 61 2°; November, 54.9°; December, 45°. The reading of the temperature by seasons would then be thus:

STATION.	SPRING	SUMMER.	AUTUMN.	WINTER.	YEAR.
Sparta	63.4°	79.1°	66.1°	45.5°	63.1°
Augusta..............	64.4	80 2	63.4	48.1	64
Savannah............	67.6	80.9	67.6	52.7	67.2

The rain-fall at the different seasons, in the city of Savannah, averages as follows: Spring, 11 inches; summer, 20.72; autumn, 8.46; winter, 8.48—giving a total annual average fall of 48.66 English inches.

Dr. Posey,* who has written an able article regarding the epidemics of Georgia, remarks: "Puerperal fever is sometimes, for a few months, much more prevalent than at others. I do not, however, believe it has occurred as a true epidemic disease." In another place, the doctor says: "Scarlatina, rubeola, varicella, pertussis, parotitis, *erysipelas*, dysentery, and some other diseases of minor importance have prevailed as epidemics, at uncertain intervals of time, in the whole of the primitive division of the state."

Study of the Table.—Out of a total population of 1,184,109, the mortality from erysipelas, in Georgia, in 1870, was 38. During the same time 76 women died from puerperal fever. As regards sex, the decedents from erysipelas numbered 12 males and 26 females, all of whom were native born (32 being white and 6 colored). Of the decedents from puerperal fever, the nativity of one was unknown, 75 were native born (*i. e.* 46 whites and 29 colored). The season of greatest mortality from erysipelas was spring (12). The season of greatest mortality from puerperal fever was spring (34). The mortality from erysipelas was the same at several different months it will be noticed. The month of greatest mortality from puerperal fever was April (13).

Reflections.—It looks as though there might have been a slight epidemic tendency to puerperal fever in the spring of the census year 1870; for the largely increased mortality about that time will be observed—however, in proportion to population, the mortality from puerperal fever is not so very great after all. Georgia has a colored population of 545,142 (267,765 males and 277,377 females). It will be seen, from this statement, that almost half the population is colored. The preponderance of mortality from both diseases among the whites will be at once seen.

We shall now turn to the consideration of Florida.

[TO BE CONTINUED.]

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* Report upon the Topography and Epidemic Diseases of the State of Georgia. By John F. Posey, M. D., Savannah. Trans. Amer. Med. Associaon, Vol. X, 1857, p. 140 et seq.

Art. VII.—Do the White Races deteriorate on American Soil?

A paper read before the Logan Co. Medical Society, by T. L. WRIGHT, M. D.

We have a thousand or more suicides every year, and as many others drop dead from heart disease. Rum and tobacco are held responsible for much of this destruction of life. Whence comes the cause of this wide-spread disease of insanity, filling the asylums to overflowing; filling also the county infirmaries, and still not the half of the unfortunates cared for? Perhaps it may be owing, in part, to the exciting nature of our political institutions, constant political agitation being inevitable. Perhaps, too, it may be promoted by the release of man from the controlling authority of a priestly interpretation of religious dogmas and the consequent religious excitement connected with varied and diverse sentiments on the subject of religion. Possibly it is in part due to the habit of encouraging the young to "aim high," aim above their capacity, invariably bringing disappointment to deeply cherished hopes. Why, moreover, do the young men and women of the rising generation flee from labor or waste their time in half-idle clerkships, or in roaming the country as "commercial travelers," without a single aspiration for independent usefulness? Who can picture the distress of parents, disappointed and heart-broken through the inefficiency of the children they once fondly hoped to see eminent, honorable, and useful, when they at last behold those children feebly shrinking from the least of life's responsibilities, yet surely, and with alacrity, seeking the companionship of sots and vagabonds? Have these things any connection with our system of confining our children, from infancy until maturity, in close and unhealthy school-rooms, and in bodily positions such as render a free circulation of the blood impossible? Do the straining of the mental faculties and the wearing of the nervous system then and there have anything to do toward an irretrievable enervation of the physical structure? Possibly these causes are, all of them, conducive to the efforts that have been enumerated. But there is a basis upon which this whole superstructure of evil reposes that has not yet been alluded to. The statistics of our town (containing between three and four thousand inhabitants) show about forty American families that do not produce any children. A larger number of families, of many years' standing, have never produced over two children, many of them only one child. When the difficulty of child-bearing is so great, we would expect to find the actual production signally defective in vital energy, and this is the fact. The largest families, as a rule, are the families of foreigners; the most robust children, also, are most commonly the offspring of our foreign population. When an American family is large, its members are more liable to be subject to diseases and disqualifying infirmities than are the children of foreigners. In short, the farther the race is removed from the original foreign stock, as a rule, it is more and more enfeebled. If this is true, it is clear, that in the gradual degeneracy toward extinction of European races upon American soil can be found the key to the lamentable disasters, mental, moral, and physical, that seem to beset the average American youth of both sexes at this time.

If this is true, then it must happen, when our land is peopled and the foreign influx is ended, that as a nation we must retrograde; must take our place in history with those nations which have been but are not; with the nations that, although existing possibly in name, are nevertheless of no more real political or historical importance.

These ideas, respecting the laws of race, are necessarily crude, commensurate only with the limited field of observation afforded by a rural neighborhood. In Cincinnati, Chicago, and St. Louis, investigation would be more satisfactory, and would perhaps, even at this early day, develop some very striking facts.

Art. VIII.—Case of Oblique Fracture of Left Femur, and Transverse Fracture of Left Tibia and Fibula, in the same Patient.

By W. M. DOUGLASS, M. D., Toledo, Ohio.

On the 12th day of September, 1873, J. B., a laborer, fell from a scaffold, the result of which was a highly oblique fracture of the left femur in the middle third, and a transverse fracture of the right tibia and fibula, within three inches of the knee-joint.

Both fractures were simple, but complicated by severe bruise of the right shoulder, with that condition of system that results from long-continued, habitual drinking, and its attendant dissipations. The result of this state of the system was for the first six days well-marked delirium tremens, during which time the medical gentlemen, who had charge of the case, had an interesting time. The delirium rendered the patient unmanageable. Struggling like a madman, and insisting on getting out of bed, he had at least once succeeded in rolling himself onto the floor. The long splint of Dessault had been applied to the fractured femur, but displacement occurring, it was twice reset and redressed, and the fractured tibia shared no better fate. He was removed to the Hospital of the Sisters of Charity of this city, and fell into my hands five days after receipt of injury, when an attempt was made to retain the fractured femur in position by the reapplication of Dessault's splint, in connection with a fracture-bed, but failed to meet the requirements of the case.

It was found to be impossible to make the restless patient comfortable, to secure proper extension and alignment of the fractured bone, or to retain it permanently in any position in which it might be placed.

Owing to the fact that the constitution was greatly shattered by dissipation, and that the soft parts about the fractured bones were much lacerated, both in the original injury and the repeated and violent displacements and reductions, it seemed highly desirable to secure as soon as possible the best attainable conditions, and to this end it was determined to apply the hammock splint of Dr. Woods, of this city.

In removing the splint of Dessault from the fractured thigh, the bones were found to be again displaced, the patient complaining of severe suffering. But little time was required to adjust the limb in the new device—the instrument quickly adjusting the displaced fragments and effecting the desired extension, the patient immediately expressing the greatest relief from suffering.

The lateral adjustability of the foot-piece enabled me at once to secure the proper alignment of the limb, and my patient was thereafter entirely comfortable.

The only difficulty experienced in treating the fractured thigh, after the application of the hammock, arose from the attempt to use it in connection with the fracture-bed, on which he was lying, when it was applied. This bed did not afford a firm and unyielding support for the *nates*, a condition that is essential in maintaining proper alignment of the fractured thigh and to secure counter-extension from that point, which is one of the especial features of the apparatus. After discovering this error, and rectifying it by making the bed-bottom uniform, little further trouble was experienced.

The leg and thigh lying firmly in the apparatus, yet exposed fully to view and manipulation, with ample facilities for painless extension and counter-extension, and the apparatus securely attached to the body, there was little danger from the demonstrations of his delirium. However, I at first took the additional precaution of passing a broad band around his chest and beneath his bunk, making it fast in such a manner as to hold him securely; but this was not rendered necessary, the delirium having in the main subsided, and the discomfort being entirely relieved.

The result was in every sense satisfactory, there being but little provisional callus and a very firm union of bone at the end of thirty-eight days, at which time pasteboard, with starch bandage, was substituted—the length of time the use of the splint was continued being prolonged, because of the helplessness of the patient from both limbs being injured.

The fracture of the right tibia and fibula occurred near the knee-joint, and was complicated by an old anchylosis that had occurred with the knee at a rather acute angle. After the subsidence of the delirium, the pasteboard dressings on this fracture had answered a much better purpose than on the fractured femur; but believing that it could be improved, the hammock splint was adjusted for fracture of the leg, and applied to this part. It was found to be an easy matter to place and retain the bones in any position desired, and the patient contented himself with his misfortune by affirming that it had resulted in making his right leg straighter and better than before.

The shortening of the oblique fracture of the femur must have been very slight, but no definite measurement could be made because of this old injury to the right knee, and its anchylosis at an angle.

Thus my patient afforded an opportunity of testing this simple and convenient instrument in both fracture of the leg and thigh, in both of which the result was everything that could be hoped for and more than could have been expected. Every indication is met in it without discomfort to the patient, with the very great advantage of the most complete facilities for inspection at any time without removal of dressings. The security afforded the surgeon is invaluable, as he will feel almost absolutely certain that in his absence no displacement will or can occur.

It is equally adaptable to fractures of the leg or thigh, either leg, and in a limb of any length; so that with this instrument at hand, the practitioner, at a moment's notice, may permanently dress any fracture that may be presented. Once placed in this instrument, it is not to be removed, or the dressing materially changed—all the after-dressings being effected without disturbance of the extension, counter-extension, or position. Ample facilities are secured for the use of the bed-pan, and all the ordinary packing, with cotton, bran sacks, and other cumbrous and heating appliances, dispensed with. Dressed in this method, the leg is suspended—cool and any medication that may be desired advisable applied, without the least inconvenience.

It has proved in my hands so effective, that I can not too highly commend it to both practitioner and patient. In compound fractures, and fractures accompanied with abscess and sloughing, it is in every way superior to all other appliances, as an understanding of its construction will demonstrate to any one.

I have further to add that I applied it in one other case of fracture of the femur, and two days after the dressing I moved the patient sixty miles by rail, without disturbing the adjustment of the fractured bones, and without pain or discomfort to the patient.

Lard as an Unguent.—It is well known that rubbing the body with hog's fat has the effect of reducing the temperature of the skin in scarlet fever. A gentleman of our acquaintance has used the fat portion of smoked ham with beneficial results, and writes to the editor to disseminate the fact for others' benefit. A celebrated German physician recommends to incorporate one or two grammes of carbolic acid into one hundred grammes of lard, and, with this, to rub the whole body, excepting the head, two or three times a day, according to the intensity of inflammation characterizing the case in hand. The effect of this kind of treatment is to produce a pleasant feeling of coolness, to keep the skin softer, and after each application the temperature of the skin falls somewhat. The carbolic acid operates to destroy the germs and spores of the disease.—*Exchange.*

Hospital Reports.

CASE OF CHRONIC MENINGITIS, WITH SOFTENING OF CEREBELLUM—SERVICE OF DR. C. G. COMEGYS, CINCINNATI HOSPITAL.

Reported by E. M. NELSON, Resident Physician.

February 3. M. P., æt. 55; German; widower; newspaper peddler. He says that he has no pain; but that for a month past he has not felt right in his head. His neighbors say that they have never noticed anything strange in his conduct until within the last two or three days; but within that time he seems to be disturbed in his mind, and restless.

Present condition: Man of average height; good muscular development and well nourished; eyes very restless in their expression; appetite poor; bowels irregular; temperature not increased; pulse 75. There was some difficulty in attracting his attention sufficiently to secure answers to questions, and there was considerable tremor in the upper extremities, but no impairment of muscular force upon either side. There is no defect in his gait at present. He was so restless and tremulous that it was impossible to make satisfactory physical examination. When asked to read from a paper that was handed to him, he did so without much hesitation. He also wrote his name tolerably legible, after turning the paper over a great many times and being told repeatedly what was wanted of him. He is very restless and tremulous, continually picking at his clothes, or at anything which may be placed in his hands. An ophthalmoscopic examination revealed nothing abnormal. Ordered potass. bromide, grs. xlv, ter die.

February 6. He voids his urine involuntarily by day and night. His bowels have not moved since his admission. He sleeps very little at night, but when he does sleep the tremor spoken of above, ceases. This morning he manifests a strong disposition to run backward, and extends both arms to keep his equilibrium upon being raised to his feet. Toward noon he was put to bed, as he manifested a disposition to slide from the chair to the floor. His bowels moved very freely after taking an ounce of castor-oil.

February 7. No change since yesterday; there is the same busy, restless action of the hands, with tremor of the arms. In the course of the morning he began to breathe, with a puffing expiration, and seemed to be rather duller than before. Pulse very feeble. Ordered quiniæ sulph. grs. ij; spts. frumenti, ℥ss, every three hours.

February 8. Pulse a little fuller, but still feeble. Has slept little or none Ordered chloral hydrate, grs. xxx, and repeat in an hour. After taking the second dose of chloral, he slept for about two hours. From that time till his death breathing was accompanied by large tracheal and bronchial râles, passing finally into mere gurgling. He was totally unconscious, but still swallowed for several hours the stimulants and beef-essence which were put to his mouth.

February 9. He died at about 5 A. M.

Autopsy, thirty hours after death:

Post-mortem rigidity very decided. The skull was thinner than usual and brittle. A large amount of fluid escaped from the spinal canal. The brain and membranes were saturated with fluid. The meningeal vessels were much congested; the arachnoid was everywhere clouded on the base and convexity. There was a slight extravasation of blood beneath the arachnoid, on both hemispheres, about an inch from the longitudinal fissure, and about half-way between the anterior and posterior borders. There was also a similar extravasation upon the upper surface of the left lobe of the cerebellum. The substance of the brain throughout was softened, and seemed to be edematous. Both lateral ventricles were distended with fluid, as also the fifth ventricle. The septum lucidum and fornix were very much softened. Attached to the choroid plexus on the right side were small yellowish masses, and somewhat downward in the right middle cornu was a larger mass of cartilaginous consistence. There were similar bodies and a similar mass, though of smaller size, upon the left side. The cerebellum was softened. The arteries at the base of the brain were atheromatous.

Both lungs were exceedingly edematous. At the lower part of the right lung there was some red hepatization, and a section sunk in water. At the lower part of the left lung, the border to a depth of about two inches was decidedly emphysematous.

The heart was firmly contracted. Size of heart normal. Along the free border of one of the curtains of the aortic valve, there was a perforation about one-fourth of an inch in length and bounded by a mere shred of tissue. One of the other curtains of the same valve had a perforation of about the size of a pin's head. The valves were tested and were found incompetent. At the base of the aortic valves were found some calcareous masses. The mitral valves were somewhat thickened, but otherwise normal. The thoracic portion of the aorta was decidedly atheromatous. The kidneys were lobulated and resembled those of a fetus. The liver, examined in situ, appeared to be healthy.

REMARKS.—It was quite manifest, in this case, on account of the mental impairment, that the gray matter of cerebrum was seriously involved; and as the case progressed to its termination, it was as clear that he was dying of congestion and the resulting dropsy of the brain; but an exceedingly interesting feature in the case was a disposition to fall backward, which he could only prevent by a hurried backward movement (festination). At the same time his arms would be thrown out to assist him in maintaining the erect station. He presented a striking resemblance, in making these efforts, to a pigeon deprived of its cerebellum, which runs backward with outstretched wings. It was believed from this symptom that the functions of the cerebellum were in abeyance, and the autopsy proved it.

CASE OF PELVIC CELLULITIS, FOLLOWING AN INJURY.

Reported from History Book by E. M. NELSON, Resident Physician.

September 14, 1871. R. O., æt. 23; colored cook. States that on last Thanksgiving-day she fell and struck near the umbilicus upon a coal-bucket. She fainted, but came to herself in a few minutes, and went on with her work. Toward evening, she fainted again. She was menstruating at the time of the accident, but the flow was arrested almost immediately. The flow was restored, as she thinks, by the use of various herbs. Her menses were scanty for sometime before receiving the injury, but were very regular in their appearance. She was confined to her bed some time from the effects of the injury. Soon after recovery, she noticed an uneasy sensation in the abdomen, and last June she perceived a small tumor near the umbilicus, which was exceedingly tender to the touch. For the last month she has been troubled with a necessity for frequent micturition and severe pain in that act, but has less difficulty at the present time. For five weeks she has been much annoyed by vomiting in the morning. Vomiting comes on without any obvious cause, and is not accompanied by much nausea.

Present condition: Negro girl of medium height; rather poorly nourished; appetite good; bowels costive; tongue coated with a white fur; pulse 100.

Physical examination: Exploration per vaginam reveals a firm, circumscribed tumor in the left iliac fossa, apparently connected with the cervix uteri. There is no marked enlargement of the body of the uterus. The os uteri is small and studded with minute nodules. Externally the abdomen is moderately distended, with the umbilicus slightly prominent. On percussion, an area of comparative dullness is found in the left iliac region, extending to within an inch or so of a line drawn through the umbilicus. On account of the tenderness about the vagina and lower part of the abdomen and the extreme nervousness of the patient, it was found necessary to give chloroform to make the examination.

September 10. Pulse 112; did not sleep well; no pain; bowels still costive; ordered pill comp. cath. No. iij; also ordered suppository, containing morph. sulph. gr. j, atropia sulph. gr. 1-20, to be introduced into the vagina once daily. Still has some dysuria.

September 23. Pulse 116; no pain; bowels regular; no dysuria.

September 25. Pulse 116; appetite very good; complains of no pain, but is restless at night; ordered pulv. doveri, grs. x, at bed-time.

October 6. Little change; rests well under influence of pulv. doveri; feels very comfortable during the day; ordered the abdomen at the seat of tenderness to be painted with tr. iodinii every second day, and vaginal injections of salt water to be used daily.

October 7. Very restless last night; to-day called attention to her left leg, which, on examination, proves to be much swollen; the edema affects the foot and extends some distance up the limb; the point of greatest tenderness seems to be over the superficial surface of the tibia; there are no signs of phlebitis. She states that the swelling commenced on the third day after admission.

October 9. Pulse 96; rested well; the size of the left thigh, especially in the upper portions, is much diminished; tenderness over the tibia is still marked.

October 10. Pulse 112; appetite still unimpaired; limb in about the same condition as heretofore; ordered to rub it with sal ammoniæ and warm vinegar, grs. x to the ℥j, and then to envelop it in warm flannel.

October 14. Pulse 116; states that she was feverish and restless all night; also that she suffered with an aching pain in her back; the abdomen is more distended, and the tenderness is more generally diffused than heretofore; the foot and leg are steadily increasing in size; the skin over the leg is tense and shining, and pits on pressure; dullness in the left iliac region is more marked than heretofore.

October 27. Pulse 80; appetite good. She is comfortable, except that she has a sense of weakness. Right foot is beginning to swell.

October 29. The right leg is edematous to the knee. There is great tenderness in the hepatic region. No satisfactory examination can be made on account of the distention of the abdomen. Pulse 84.

November 1. Pulse 120, very feeble; very restless last night; appetite failing; she is gradually losing strength; swelling in feet increasing. Ordered whisky toddy, *pro re nata*. In the evening vomited several times. The act of vomiting was attended with agonizing pain in abdomen.

November 2. Sinking rapidly. Has to be propped up in bed in order to enable her to breathe. Died at 2.30 P. M.

The autopsy took place about a week after death, the body in the meantime having been injected with a solution of chloride of zinc. Between the abdominal wall and the anterior wall of the stomach there was a cavity which was limited inferiorly by the adhesion of the greater omentum to the abdominal wall. This cavity was filled with a puriform liquid. The adhesions were not very easily broken down. In the general peritoneal cavity there was a yellow liquid similar to that in the cavity just mentioned; this was most abundant in the pelvis, which was nearly filled with it. The peritoneum in the lower part of the abdomen and in the pelvis was injected and covered with patches of recent lymph. Surrounding the left ovary, and firmly connected with the brim of the pelvis and with the lateral wall below, was a neoplasm of a white color and tolerably firm consistence. This involved also the external portion of the broad ligament. Beneath it passed the left common iliac vein, which contained a partially discolored firm thrombus, which extended upward as far as the bifurcation of the vena cava inferior, and downward below Poupart's ligament, beyond which the dissection was not carried. Surrounding the right ovary and occupying the whole of the broad ligament, was a similar white mass. This new formation was also firmly adherent to the pelvic wall, and had caused great thickening of the broad ligament. Upon making a section of these tumors, at certain points dark masses were seen, which had the appearance of partially discolorized extravasations of blood. Resting upon the right iliac vein was an enlarged lymphatic gland, which had evidently interrupted the circulation through it, although the blood contained in it was quite fluid. Upon the posterior wall of the uterus was a small subperitoneal fibroid tumor, and occupying the anterior wall near the opening of the left Fallopian tube was an interstitial fibroid tumor of larger size. The inguinal and pelvic lymphatic glands were considerably enlarged, and the retro-peritoneal, axillary, and mesenteric glands were enormously hypertrophied. These exhibited no caseous masses nor softening of any kind, upon section.

Lungs, liver, and spleen were normal. The tissue of the tumors, when teased out with needles, presented under the microscope simply fine fibers, with a few small irregularly rounded cells. The glands subjected to a microscopic examination were found to consist of cells and glandular debris, with a few fibers.

How to Remove Adhesive Plaster.—The portion of the plaster which is left adhering to the skin may be quickly and completely removed by the use of oil of turpentine and sweet oil. Use a little more than half turpentine. This compound, carefully rubbed over the parts with a bit of cloth or sponge, and then washed off with warm soapsuds, will leave the surface as clean as nature ever intended.

Saline Cathartics.—Dr. Adolph W. Miller, *Amer. Jour. Pharmacy*, July, 1873, considers the effervescing solution of tartrate of sodium an improvement on the popular citrate of magnesia, as being more agreeable to the taste, more reliable and efficient in its action as a purgative, with less tendency to tenesmus; its forming a more permanent solution; and its cheapness.

Correspondence.

CINCINNATI, *April* 9, 1874.

EDITOR LANCET—*Dear Sir:* In the February number of your journal, C. D. P., whilst reviewing Leishman's obstetrical work, makes the following statement: "Dr. Barnes, in 1857, recommended the employment of the perchloride of iron injection in post-partum hemorrhage. Since which time it has been freely used in Great Britain and this country, and with results most decidedly in its favor."

In the number following (March), your correspondent, "E. B. S.," thus alludes to this statement: "Your correspondent, 'C. D. P.,' gives to Dr. Barnes, of London, a credit, which everybody of any obstetric information in your city knows, belongs to Dr. George Mendenhall."

In the present number (April), C. D. Palmer shoulders the initials, C. D. P., and reviews your correspondent, E. B. S., in a letter, commencing on page 231, wherein he attempts to defend the aforesaid statement of "C. D. P."

Dr. Geo. Mendenhall, having retired from the field of professional labor, is all the more entitled to wear the laurels he may have fairly won. "Render, therefore, unto Cæsar the things which are Cæsar's."

In behalf of "the truth of history," it is my desire to call the attention of your numerous readers to the merits and demerits of this controversy, the foundation of which concerns all who love to do impartial justice to their professional brethren.

There should be no dispute between E. B. S. and C. D. Palmer as to whether Dr. Barnes or Dr. Mendenhall first used a solution of per-*chloride* of iron as an intra-uterine injection in post-partum hemorrhage.

To this hour, Dr. Mendenhall has not employed, as an intra-uterine injection, the solution of per-*chloride* of iron in post-partum hemorrhage; nor, on the other land, has Dr. Barnes ever used or "recommended" the use of the per-*sulphate* of iron for said purpose—the latter being the particular "agent" invariably employed in such cases by Dr. Mendenhall, according to his record.

Nor does Dr. Barnes even name it in this connection, so far as his own record goes to show.

In view of Dr. Palmer's familiarity with Dr. Mendenhall's published cases, as exhibited in his letter on page 232, it must have required some ingenuity in the selection of terms, whereby to avoid informing your readers in regard to this very important fact, concerning this dispute. If this, then, were all, further discussion would be unnecessary.

Dr. Palmer, however, seeks to establish the claim in behalf of Dr. Barnes, that he, Dr. B., had *used* the perchloride of iron, not only in 1857, but "BEFORE THAT DATE." In this effort, his zeal overshoots the record.

On page 125, February number, Dr. Palmer says: "Dr. Barnes, in 1857, recommended the employment of the perchloride of iron injection in post-partum hemorrhage." Dr. P. will excuse me for saying that Dr. Barnes did nothing of the kind on the occasion to which he refers—*Barnes' Lettsomian Lectures.* Those three lectures had sole reference to placenta previa, and nowhere, in either of them, does he "recommend" or even allude to the use of perchloride or any other kind of injections in post-partum hemorrhage. Nor on that occasion did he *recommend* it as a remedy for *ante*-partum hemorrhage. He used the word appropriate to the facts. He says: "I *suggested*, some time ago, the injection of the sesqui chloride of iron. Dr. Schreier, of Hamburg, has related some instances in which this agent was employed with success." This "suggestion" had reference to its employment in those cases of *placenta previa* where hemorrhage persists, and the os uteri remains too contracted to admit of his own or other mechanical interference.

It will be observed that Dr. Barnes contents himself with informing us that Dr. Schreier had "related some instances in which this agent was employed with success." In this connection, the *experience* of Dr. Schreier should have been supported by that of Dr. Barnes, if he had had any. His writings do not indicate backwardness in that respect. But Dr. Palmer further asserts in his letter, at the head of page 232, that "he (Dr. Barnes) says he *had used it* BEFORE THAT DATE." Dr. Palmer gives us as authority for his particular phraseology, *Obstet. Transactions*, London, vol. xi., page 240. He refers to the last paragraph of Dr. Barnes' *reported* closing remarks, in response to those who had participated in the discussion of his paper on post-partum hemorrhage. The exact language of the reporter (not Dr. Barnes) is as follows: . . . "His own first published recommendation of it was in his Lettsomian Lectures, on placenta prævia, in 1857, and of course he had used it before that date." This concluding observation is either an inferential interpolation of the reporter's, or an unsupported claim on the part of Dr. Barnes himself, as any one must certainly concede who will read Dr. Barnes' third Lettsomian Lecture.

And, now, as to the essential facts in this matter: Dr. George Mendenhall, of Cincinnati, was *first* upon the record (1860), accessible to the profession, as having *employed* and recommended the intra-uterine injection of the *saturated* solution of per-*sulphate* of iron as a hæmastatic in post-partum hemorrhage. 2. For said purpose, it is more prompt and efficient and vastly safer than the solution of per-*chloride* of iron of equal dilution; and in no degree of concentration is it a caustic, differing therein from the perchloride. 3. The *recorded use* of the per-*sulphate* of iron, by Dr. Mendenhall, precedes the *recorded use* of the per-*chloride* by Dr. Barnes, as an intra-uterine injection in post-partum hemorrhage. 4. Dr. Barnes can not be found upon the record satisfactorily, as having *used* the perchloride of iron as an intra-uterine injection in post-partum hemorrhage, anterior to 1866,—nine years after the delivery of his Lettsomian Lectures, and six years after Dr. Mendenhall's first published case of the *use* of the persulphate for the same purpose.

If these statements can be sustained—and if called in question, the effort will be made—then, virtually, the remarks of E. B. S., on the assertion of C. D. P., as between Dr. Barnes and Dr. Mendenhall, were both just and proper.

Dr. Palmer, in his letter, quotes himself to show that he did not claim priority for Dr. Barnes. The trouble with his quotation is, he did not quote enough, so far as Great Britian and this country is concerned. He should have added: "Since which time it has been freely used in Great Britain and this country, and with results most decidedly in its favor." By fair implication such language means priority, so far as he refers to Great Britian and this country. In this connection, it may be remarked that in this city, the solution of perchloride of iron as a hæmastatic in post-partum hemorrhage has not been "freely used," or used at all, so far as I am aware. Dr. Barnes stated, in 1865, that "for several years" he had *used* the perchloride of iron as before indicated;

but his indefinite statement did not become a part of medical literature until the following year 1866. See Obset. Transactions, London, vol vii. Six years anterior to this, Dr. Mendenhall gave to the profession, through the columns of your widely circulating journal, the employment and recommendation of an agent—the solution of per-*sulphate* of iron—far the superior of that always used and recommended by Dr. Barnes.

Your readers may consider me tedious, but, as a matter of judgment, the contribution of Dr George Mendenhall, in this regard, is one of the most important ever bestowed upon the profession and humanity. It stands between life and death, in extremity, plucking from the latter its victims While his agent may be employed in any degree of concentration almost with impunity, that of Dr. Barnes and his followers, under like conditions, would almost certainly destroy the patient. Further, Dr. Barnes has been at no little pains to secure to himself the credit of having first used the per-*chloride* of iron in post-partum hemorrhage, an agent, as I have pointed out, far inferior to that employed by Dr. Mendenhall for the same purpose. Then shall the greater credit fall where most deserved; and may the profession and humanity ever feel duly grateful to Dr. George Mendenhall in his honorable retirement.

Respectfully yours,

B. F. RICHARDSON.

LODI, OHIO, *April* 14, 1874.

EDITOR LANCET AND OBSERVER—*Dear Sir:* In the April number of the LANCET AND OBSERVER, Dr. J. F. Bird, of Philadelphia, gives the following theory as to the cause of similarity in twins. He says: "I have invariably found that, when twins are contained in the same sac, and sustained by the same placenta, they have always had a slavish resemblance to each other; while those contained in different sacs, and sustained by different placentæ, are as unlike as children born of the same parents at different periods, however remote."

This hypothesis, in the main, may be a correct one; but that there are well-marked exceptions to the rule, the following case clearly proves: April 6th, was called to attend Mrs. D., in her eighth confinement. In about thirty minutes after reaching the bedside she was delivered of a fine, healthy looking girl. Presentation natural. Having cut the cord and handed the babe to the nurse, I took hold of the cord; found it very short; made an examination and found another child, which was born in a few minutes; footling presentation. This was also a girl.

Having read Dr. Bird's communication but a day or two previous, my mind at once recurred to it, and caused me to notice all the particulars of this case as one to the point, and with the following result: Both children were contained in the same sac, and attached, by unusually short cords, to the same placenta—the weight of the babes, after being lightly and similarly dressed, being eight and one-half pounds; the oldest (by one half hour) had a very full head of coal-black hair, black eyes, and dark skin; while the other had a very scant crop of flaxen hair, light blue eyes, and very clear, almost transparent skin; and the features were as unlike as the complexions. Thus, in this case, the only similarity that I could detect was the equally and unusually large size.

Yours very truly,
J. C. MILLER.

Styptic Collodion.—The following will be found a most useful formula:

Tannin,	2 oz.
Alcohol,	4 oz., fl.
Ether,	12 oz., fl.
Soluble cotton,	1 drachm and 2 scruples.
Canada balsam,	1 drachm.

Dissolve the tannin in one part of the alcohol, and the ether with the Canada balsam; then add the cotton.—*Dublin Medical Press and Circular.*

Corn meal, heated and placed in bags, is recommended as a substitute for hot-water bottles and such like appliances for restoring warmth to the sick. It is said to weigh less, retain heat longer, and does not chill when cold.

New Remedies.

Reported by J. S. UNZICKER, M. D.

Methyl-Strychnia.—The non-poisonous nature of this chemical was first mentioned by M. Stahlschmidt (*Ann. der Phys. und Chem.*) in 1860. But since then little attention seems to have been given to a fair trial of the same with an intention to determine its true value. It seems to me that in cases where strong doses of strychnia are necessary, the methyl-strychnia, as will be seen, may have advantages over all other strychnia preparations; that is, if, by combining it with methyl, it does not otherwise lose its effects on the nervous system. This seems the point which remains to be determined by actual trial and close observation on the human system. Stahlschmidt has determined that when an equivalent of hydrogen, in either strychnia or brucia, is substituted by methyl (C^2H^3), these bases become innocuous. The author, by experiment, found that a rabbit which took five grains of methyl-strychnia without any bad symptoms, died in five minutes when the twentieth of a grain of strychnia was put on its tongue. This modification of strychnia appears to be due to methyl; because, as the author remarks, the hydrocyanate of methyl is perfectly inoffensive. M. Schroff (*Journal de Phar.*) confirms the perfect innocuity of methyl-strychnia when introduced into the stomach, but ascertained that when put in contact with blood, by subcutaneous injection, it is a powerful poison, because, under these circumstances, it recovers or resumes the poisonous properties which characterize strychnia, and calls attention to the fact that *curara arrow poison* may be ingested with equal freedom, and queries whether it is not of the same nature as methyl-strychnia.

Cincho-Quinine.—The following communication, from J. F. Miller, M. D., of Goldsboro', N. C., appears in the *Philadelphia Medical and Surgical Reporter*, of February 14, 1874:

"The comparatively new article of medicine, cincho-quinine, having become a subject of much comment by quite a number of medical gentlemen, I have been induced to try it in my own practice. I have been using it freely for about twelve months, and have fairly tested its virtues, both as a tonic and antiperiodic, and I can safely recommend it to my professional brethren as a most valuable medicine. I have observed but one unpleasant effect on children, *i. e.*, an efflorescence of the skin after giving the medicine for several days in full doses; but this effect is comparatively rare and really of little importance. I do not regard the cincho altogether equal to the sulphate of quinia as an antiperiodic of the same quantity by weight, but probably about one-eighth weaker; that is to say, it will require one-eighth more by weight of the cincho to make it equal to the sulphate of quinia as an antiperiodic. But the sulphate costs a little more than one-third more than the cincho, which, as a pecuniary investment, leaves a balance in favor of the latter article. The cincho-quinine certainly agrees with the stomach better than the sulphate, and produces little or no nervous derangement. and is consequently preferable to the sulphate in many cases. Notwithstanding the eruption that now and then appears from its exhibition to children, I regard the cincho-quinine the very thing for this class of patients; for, by making an elixir of the medicine, they take it very readily, which is a most important consideration.

"The following are only a few of the many cases of children treated with the cincho-quinine, and I also give the formula used by myself in preparing the elixir:

"Ella, child of W. F. F., æt. eighteen months, has had intermittent fever, quotidian form, for several days. Chill believed to appear from 8 to 10 o'clock A. M. ℞ Cincho-quinine, grs. vij; aro. sulph. acid, gtt. v; syr. zingiberis, aquæ rosa, ăă ℥ss. Mix and dissolve. Sig. Tea-spoonful at 8 and 11 P. M., and 2 and 5 A. M. No perceptible chill, but a slight fever came on about 1 o'clock P. M. Repeat the prescription at 5, 7, 9, and 11 A. M., following day. Result, no chill or fever, and patient recovered without further difficulty.

"Tommy, son of T. B. H., æt. five years, has had two chills, tertian form; the last chill being very severe and fever lasting unusually long; bowels costive Time of chill 7 A. M. ℞ Hydr. chlo. mitis, leptandrin, ăă grs. ij. Mix. Sig. Take at bedtime. Medicine acted well early next morning; and at 8 and 11 P. M., and 2 and 5 A. M., two tea-spoonfuls of the following mixture were given: ℞ Cincho-quinine, grs. xij; aro. sulph. acid, gtt. vij; syr. zingiberis, aquæ rosæ, ăă ℥j. Mix and dissolve. Result, no return of chill or fever, and patient rapidly recovered. The remainder of the prescription was given to him in tea-spoonful doses ter in die.

"The last case that I shall notice (though many others might be given) is that of my own child, Charlie, æt. seven and a half years. To him I gave the same prescription given to child of T. B. H., with a like result. A few drops of tinct. cinnamon will add to the agreeableness of the elixir of cincho-quinine."

Medical Societies.

AMERICAN MEDICAL ASSOCIATION.

The twenty-fifth annual session will be held in the city of Detroit, Mich., on Tuesday, June 2, 1874, at 11 A. M.

"The chairmen of the several sections shall prepare and read, in the general sessions of the association, papers on the advances and discoveries of the past year in the branches of science included in their respective sections." . . —*By-Laws, Art. II., Sec.* 4.

SECTIONS.—Practice of Medicine, Materia Medica, and Physiology: Dr. N. S. Davis, Chicago, Ill., Chairman; Dr. Geo. E. Frothingham, Ann Arbor, Mich., Secretary. Obstetrics and Diseases of Women and Children: Dr. Theophilus Parvin, Indianapolis, Ind., Chairman; Dr. Montrose A. Pallen, St. Louis, Mo., Secretary. Surgery and Anatomy: Dr. Samuel D. Gross, Philadelphia, Penn., Chairman; Dr. Alonzo Garcelon, Lewiston, Me., Secretary. Medical Jurisprudence, Chemistry, and Psychology: Dr. A. N. Talley, Columbia, S. C., Chairman; Dr. E Lloyd Howard, Baltimore, Md., Secretary. State Medicine and Public Hygiene: Dr. A. Nelson Bell, Brooklyn, N. Y., Chairman; Dr. A. B. Stuart, Winona, Minn., Secretary.

"Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the secretary to whom such papers are sent, to examine them with care, and, with the advice of the chairman of his section, to determine the time and order of their presentation, and give due notice of the same." . . —*By-Laws, Art. II., Sec.* 5.

The following committees are expected to report: On Cultivation of the Cinchona Tree, Dr. L. D. Deal, Pennsylvania, Chairman; on the Treatment of Fractures, Dr. Lewis A. Sayre, New York, Chairman; on Gynæcology, Dr. M. A. Pallen, Missouri, Chairman: on some Diseases peculiar to Colorado, Dr. John Elsner, Colorado, Chairman; on Rank of Medical Corps of the Army, Dr. J. M. Keller, Kentucky, Chairman; on Prize Essays, Dr. G. K. Johnson, Michigan, Chairman; on the Progress of Otology, Dr. D. B. St. John Roosa, New York, Chairman; on American as compared with Foreign Winter Cures, Dr. H. R. Storer, Massachusetts, Chairman; on Railroad Injuries, Dr. W. F. Peck, Iowa, Chairman; on the Therapeutics of Ammonia, Dr. P. J. Farnsworth, Iowa, Chairman; on the Relation of Physiology to the Practice of Medicine, Dr. E. W. Gray, Illinois, Chairman; on Puerperal Fever, Dr. W. O. Smith, Kentucky, Chairman; on the Legal Relations of Moral Insanity, Dr. E. Lloyd Howard, Maryland, Chairman.

The following amendments to the Plan of Organization are to be acted upon:

By Dr. N. S. Davis, Illinois—Strike out the second paragraph of Art. II. and insert the following: "The delegates shall receive their appointment from permanently organized state medical societies, and such county and district medical societies as are recognized by representation in their respective state societies, and from the medical department of the army and navy of the United States." Also, strike out the fourth paragraph of same article, and insert: "Each state, county, and district medical society, entitled to representation, shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number. The medical staffs of the army and navy shall be entitled to four delegates each."

By Dr. P. Pinneo, of Massachusetts—Art. II., second paragraph, after "army and navy," insert "and the marine hospital service of the United States." By-laws, sec. 6, after "the chiefs of the bureaus of the army and navy," insert "and the supervising surgeon of the United States marine hospital service."

By Dr. E. L. Howard, of Maryland—Art. IV., strike out second clause of first paragraph, and insert: "They shall be nominated by the judicial council, and shall be elected by vote on a general ticket."

By Dr. A. S. Maxwell, of Iowa: "*Resolved*, That in view of the many and important duties imposed upon the nominating committee, the medical society of each state and territory that elects delegates, be requested, when selecting delegates, to nominate one member of such delegation as their member of the nominating committee, and also designate the mode of filling vacancies."

By Dr. A. M. Pollock, of Pennsylvania—Art. VI., first paragraph, strike out the word "five" and insert "ten." By-laws, art. 5, first paragraph, strike out "five" and insert "ten."

Secretaries of all medical organizations that have adopted the code of ethics are respectfully requested to forward to the undersigned a complete list of their officers, with their post-office addresses, and the number of their members in good standing. This is the only guide for the committee of arrangements in determining as to the reception of delegates. It will also enable the permanent secretary to present a correct report of the medical organizations in fellowship with the association.

WM. B. ATKINSON, M. D.,
Philadelphia, Permanent Secretary.

CLARKE COUNTY MEDICAL SOCIETY.

Discussion on "Alcoholic Liquors—Their Agency in the Cause and Cure of Disease." Reported by Dr. ISAAC KAY.

The Clarke County Medical Society met Thursday afternoon, February 26th, in order to consider the above-named topic, Dr. J. H. Rodgers in the chair. Members present—Drs. Banwell, Bryant, Hazzard, Kay, McNeill, Owen, Pollock, Reddish, Reeves, Rice, J. H. Rodgers, Seys, Senseman, Totten, and Whitehead.

Dr. Reeves commenced the discussion by saying that he had never, in all his professional life, recommended either brandy, whisky, wine, or malt liquors as a beverage. Upon this point he had always maintained strictly temperance ground. Considerable change had occurred in the theory and practice of the profession within the last few years with reference to the pathological effect and therapeutic use of alcoholic liquors. They were far less used now than formerly. He had never used much alcohol in his own medical practice. He scarcely ever used medicines in the form of tinctures. There was greater certainty and efficacy in other forms and preparations. The longer he had been in the practice the less of this class of stimulants he used, and the better success he had in the treatment of disease. He preferred the aqueous solutions, infusions, and fluid extracts, to the tinctures and other alcoholic solutions. The former had a more prompt effect upon the disease, and they had not so many drawbacks as the latter, by way of irritating the mucous surfaces and exciting the inflammatory condition. But another evil almost inseparably connected with the drug was the creating of an abnormal appetite, which oftentimes eventuated in the complete ruin of the patient, body and mind. Dr. R. quoted Dr. Thompson, of London, who asserts that, in his opinion, no less than four-fifths of the tubercular diseases, as well as kidney, liver, and bowel affection of adults, in England were clearly traceable to the use of alcoholic liquors. There had been a current notion in the minds of physicians for many years that ale, porter, and beer headed the list of proper remedies for indigestion and all manner of weaknesses of the stomach and bowels. A good article of these agents had doubtless done good in many instances; but in his opinion, none of the malt liquors made in this city were fit to be prescribed by a physician for any disease, nor for any condition of the system whatever. Most of it was mere slop, drugged with fishberries. The drinks manufactured in Springfield were detestable—vile compounds—unfit for the human stomach, and should never be administered as a medicine nor indulged in as a beverage. Dr. R. enlarged so fully upon the manner in which the art and tricks of the craft have been employed in the adulterations of modern liquors, that nothing further was left to be said upon that point. Cocculus Indicus entered extensively into the make-up of Springfield beer.

Dr. Seys said, his views in regard to alcoholic liquors had not changed for twenty years. He considered them invaluable as remedies in certain diseased conditions, but as dangerous and productive of great evil when used as a beverage.

He did not fully agree with Dr. Reeves in claiming alcohol to be the cause of so large a per cent. of the cases of consumption, or diseases of the kidneys, although it was well known that a certain and always fatal class of cases of the latter, were so produced, and by that cause chiefly.

Alcoholic liquors are not life-sustainers. They are not heat producers, except temporarily, it being well known and stated by almost all Arctic explorers that their use during exposure to extreme cold was always attended by bad results. The sober, temperate man lived—the drinker of alcohol perished.

Neither did he regard alcohol as a nutrient. While he regarded its use justified, and its results invaluable in certain conditions, as a medicinal agent, its administration should not be long continued, and its habitual use leads to a train of unmixed evil.

Dr. Owen believed that in many diseased conditions of the body alcoholic liquors were not only admissible, but loudly called for. Of course, a pure article should be procured, if possible, and it should be used very circumspectly. It should be given in low, typhoid forms of fever, and in cases of general debility and nervous prostration, where we could not afford to lose much time in arousing the flagging powers of the patient. The effect of this class of remedies was prompt and generally reliable. Dr. O. gave the clinical history of some cases in which, after the patient was apparently *articulo mortis*, good French brandy had acted like a charm in effecting a restoration. He indorsed what Dr. Reeves had said about the poisonous drugs used in making beer as well as whisky. He once saw a receipt from which some of our modern whisky was made. The receipt called for the making of two barrels out of one, where all the intoxicating properties were retained. The drugs were vile and potent enough indeed, but it seemed to answer all the purposes for which it was sold. Cocculus Indicus, strychnine, and dog-leg tobacco were among the prominent ingredients entering into these drinks. No alcoholic liquors, whether pure or not, should be used as a beverage, especially in health. And in that class of patients where the physician can not safely prescribe this remedy without incurring the danger of establishing an uncontrollable appetite for strong drink, such as will cling to him in after-life, it were better to let him die at once than to use the alcohol. He had no doubt but that the reckless recommendation of ardent spirits by physicians had in many instances led the patient to a life of drunkenness.

Dr. Bryant was in favor of taking high ground in regard to the question under consideration. The position of the medical profession upon this subject was likely to be misunderstood by the people. Physicians must have rules of action in these matters which might be deemed by the people as peculiar, to say the least. Doctors should not regard themselves as free to vow that they shall never, under any circumstances, use this, that, or the other remedy in the treatment of diseases. They are bound to use any substance which science and experience have shown to be the most efficacious in the cure of disease. It makes no difference what that article is nor whence it is obtained. If the said article remove the disease more speedily, easily, and certainly than anything else, by all means use it, whether it be solid, fluid, or æriform, or whether it be obtained from above the earth, or on the earth, or under the earth. This broad and catholic platform of the regular medical profession might not be so fully appreciated by unprofessional persons. It must be admitted, however, that great care should be observed in the administration of alcohol, as in all other potent and poisonous drugs. If the physician uses this article as a stimulant in a case where there is an extreme and perilous degree of prostration, and where a slower remedy would not answer, thus saving the patient's life, then that physician should have no remorse of conscience for having used the alcohol, although drunkenness might follow. The patient himself, and not the physician, would be responsible for the dire results. Dr. B. denounced the use of all strong drinks as a beverage. And among these should be recorded brandy, whisky, gin, porter, ale, beer, and even fermented cider. The milder fermented liquors, which had the reputation of being tonics and nutrients, produced obesity, it is true, but that obesity consists not of healthy flesh, but of fatty degeneration, and in many cases death approaches the habitual drinker from that direction. Indigestion and dropsy may also be enumerated among the results of ale and beer drinking. But worse than all is the debasing effects which these beverages have upon the human mind. For they not only bring on intractable disease, but they destroy the morals and impair the intellectual faculties. Dr. B. seldom ever prescribed bitters, tinctures, or wines, even to convalescents. He had better tonics and restoratives, for at least all ordinary cases.

Dr. Hazzard felt his inability to do this important subject justice. He thought that it was the business of the society to-day, to consider the subject of alcohol from a strictly scientific stand-point. Alcohol acts first as a stimulant and soon afterward as a sedative upon the system. Alcohol as a drug has its proper place and should sometimes be used. He was not in favor of prescribing it entirely. Dr. H. then gave a hypothetical case in which he thought that alcohol should be used. In extreme prostration where we could not wait for tonics and other slower restoratives, alcohol should be used. But in all such chronic affections as pulmonary consumption, this class of remedies should be eschewed. The demonstrated powers of alcohol over the tissues of the body showed that the life of the patient in such cases can not be materially prolonged, and its well-known powers over the mind added nothing to the comfort and happiness of the patient whilst he did live. There was a great deal of humbugging in this thing of using rye whisky, brandy, and ale in consumption, dyspepsia, and other chronic diseases.

Dr. Senseman did not consider himself competent to instruct the people as to what they should eat and drink. Notwithstanding all that had been said by lecturers and preachers against the entire uselessness and harmfulness of alcoholic liquors, he thought that their claims to usefulness in medicine should not be ignored. Dr. S. believed that habits of intemperance were very seldom, if ever, established as the result of physicians' prescriptions. He thought that alcohol had been too indiscriminately denounced upon this floor to-day. Dr. S. then quoted one or two authorities to show the utility of ardent spirits in the cure of disease. Some of these authorities had claimed when taken immediately before or after meals, ale and porter promoted digestion, and thus indirectly built up the system.

Dr. Whitehead regarded alcoholic stimulants as among the most valuable articles of medicines, but their proper administration requires the utmost care and judgment, and in many cases the nicest tact and discrimination. The condition of the system indicating the use of alcoholic stimulants is sometimes critical and dangerous, and their effects require the closest watching and care. The subject was of great importance and could not be well discussed in a few hours' time. Dr. W. had used alcoholic stimulants in cases of shock of the system, when the vital power of the heart's action and nerve force was low. In many cases, if the system can be sustained for a few hours, a great point is gained, with a fair chance of recovery. In inflammation of a typhoid form and in typhoid fevers, alcohol not only stimulates the vital power, but neutralizes the fever poison already in the system. Dr. W. thought alcoholic stimulant valuable in convalescence from continued fevers, stimulating digestion and promoting assimilation ; but as alcoholic stimulants were agents potent for evil as well as good, they should be administered with care and their use diminished and discontinued as soon as possible.

There is no doubt that a course of over-indulgence is sometimes commenced by the use of alcohol as a medicine. Dr. W. thought that this, as any other effective medicine, might be misapplied or abused. The different forms of alcoholic stimulants could not be used indiscriminately. The distilled spirits were the most powerful as stimulants and more temporary in their effects upon the system, while wine or malt liquors were less stimulating and more lasting in their effects.

Dr. McNeill thought that it became important that physicians should clearly define their position with reference to the use and abuse of alcoholic liquors. He was of opinion that in the discussion of this question too little had been said with reference to alcohol as a menstruum for the administration of medicine. We should not forget that alcohol is necessary as a chemical agent in the solution of medicine and in the numberless operations of the pharmaceutist. Dr. M. did not believe that physicians were any more responsible for the morals of the people than other men, nor any less. Physicians should act in molding the characters of their fellow-men just as any good man should. We are called upon to act in this sphere as men in any other capacity. Dr. M. took high and honorable ground upon this whole subject of the relation of physicians to the evils of intemperance.

Dr. Pollock discussed the theory advocated by some, that the habitual use of ardent spirits was conducive of longevity. Instances had been pointed out to them of long-lived men who had been whisky-drinkers from early youth. In many such cases the victims of the evil habit had been allowed to survive for a long while in spite of their reprehensible habit, and thus they were spared to be a continual nuisance to themselves and friends. Dr. P. had used alcohol, not only as an internal remedy, but as an outward application with great profit.

Dr. Reeves wished to add, that in his opinion physicians were responsible for some of the moral, or rather immoral practices of the people. Doctors were accountable for many a drunkard, made so by recklessly prescribing alcohol. The fluid extracts and aqueous solutions were far more pleasant and reliable than the tinctures, and the highest and brightest medical authorities in the world at the present time warn us to beware of alcoholic dosings and potations in the treatment of many diseases where, in time past, these means have been used. This agent is especially inadmissible in patients who are young and who have not naturally come to the down-hill stages of life. It is almost always poison to such.

Dr. J. H. Rodgers regretted that the question for consideration to-day had not been differently stated. We should have had a better opportunity of discussing the relation of physicians to the temperance work now going on in our midst. As the question before the society now stood, the members were confined within scientific limits. But he was pleased with what he had heard from the speakers who had preceded him upon the moral and social bearings of this matter of using alcohol, both as a medicine and as a beverage. The medical profession have not as yet performed their whole duty. It is the province of the physician to teach as well as to practice. We are in one important sense our "brother's keeper," try to ignore it as we may. We should ever bear this doctrine in mind. The articles of our materia medica, which are the most closely connected with questions of morals and of social life, are two, viz., alcohol and opium. We should be cautious about prescribing alcoholic liquors to children and youth, especially its long-continued use in the treatment of chronic complaints. Besides doing but little good toward cure in these cases, they are almost certain of doing harm. Had he a case of tuberculosis in a boy or young man, he would advise an abstinence from wines and other like liquors. It would be better, certainly, to use other tonics and supportives, and thus have the consumptive spend the rest of his days in sobriety, than to excite a raging thirst for strong drink by the long-continued use of ardent spirits. Even where such remedies are used to their fullest extent, there is no convincing proof that life is prolonged by them.

Dr. Seys made some further remarks in regard to the responsibility of the medical profession with reference to the spread of intemperance. Cases had come under his own observation, where he was personally cognizant of the facts, in which habits of intoxication had been formed, in which the attending physician had been accused of being the cause, and in one case in which a child not seven years old grew to love the wine prescribed for him. Admitting the value of alcohol as a remedy, its use should be so guarded as to lessen to the fullest extent the possibility of mischief following. The same rule held good of other articles—for instance, opium. He explained fully the manner in which the use of alcohol breaks down nearly all the tissues of the body, where such use is long continued, and believed that unless it was clearly indicated it should be left out of our prescriptions. He deemed it right that as physicians, and being to a certain extent custodians of the public health, as citizens having the welfare of the community at heart, and as parents, we should speak clearly and definitely in this matter; and for one he wanted to be put on the record as willing, by all legitimate means, to do what lay in his power to confine the use of alcohol to its strictly therapeutic use.

After the afternoon had been mostly spent in discussing the scientific aspect of this question of alcohol as a cause and cure of disease, *Dr. J. H. Rodgers* stated that it might not be amiss for the society, in the present emergency, to make some formal expression of its sentiments in regard to the present popular movement against the sale and use of alcoholic drinks as a beverage. He therefore presented the following resolutions, which were adopted almost unanimously, three or four members having gone home before the vote was taken, some of whom, if not all, would have favored the resolutions. Those present and voting aye were Drs. Banwell, Bryant, Hazzard, Kay, McNeill, Owen, Rice, J. H. Rodgers, Seys, and Totten.

RESOLUTIONS.

1. That a large proportion of human misery, including poverty, crime, and disease, is induced by the use of alcoholic or fermented liquors as beverages.

2. That perfect health is compatible only with total abstinence from all such intoxicating beverages, whether in the form of ardent spirits, or as wine, beer, ale, porter, cider, etc.

3. Though it is doubtless true that the remedial use of alcohol has been and is often carried to an extent prejudicial to health and morals, we regard such instances as exceptionable, and the result of error in judgment. And while claiming for alcoholics a prominent and powerful place in the treatment of disease, we denounce their indiscriminate use, and declare any other than their judicious employment to be both unscientific and unsafe.

4. We hereby express our sympathy with the present temperance movement, and however we may differ as to the best mode of suppressing the liquor traffic, we heartily agree to aid in the good work by our efforts and influence, both as citizens and physicians.

The society then adjourned, to meet again, in regular session, on the second Thursday in March; at which time, after the hearing of reports, the subject will be a modification of the same as discussed to-day, viz., "The pathological effects and therapeutic uses of alcohol."

Reviews and Notices.

A Clinical History of the Medical and Surgical Diseases of Women. By ROBERT BARNES, M. D., London, Fellow and Lumleian Lecturer (1873), Royal College of Physicians, etc. Henry C. Lea, Publisher.

Dr. Barnes begins his work by devoting the first five chapters of his book to the anatomy of the genital organs, of which he gives a very minute description, accompanied by excellent wood-engravings. In chapter six the author proceeds to point out the conditions indicating the necessity for a physical examination. In the chapter on *dysmenorrhœa* he takes occasion to add another new word to our vocabulary—*dyspareunia*—"to express the condition of difficult or painful performance of the sexual function." The author gives an elaborate description of the instruments ordinarily used by the obstetrician, nearly all of which are illustrated by wood-engravings. Nor does he omit to mention the contents of his "Gynæcologist's Bag." One hundred pages are devoted to the ovary and the diseases to which it is subject, including a chapter on ovarian tumors, and one on ovariotomy as it is performed by Mr. Spencer Wells, with the after-treatment—giving credit to our countryman, Dr. W. L. Atlee, of Philadelphia, for improvements introduced in the operation; but not a word about the operation as performed by Prof. White, of Buffalo, by enucleation. The chapters on extra-uterine gestation are full and practical; also those on metritis and endo-metritis. Under the head of "Intra-uterine Medication," he is careful to impress this all-important caution, namely: *Never to use any topical application to the uterus, or to perform any surgical operation upon the uterus, when a menstrual period is impending.* At this time it may be said the uterus resents all interference.

To avoid the dangers of intra-uterine injections, he enjoins the following precepts: The great object aimed at being to avoid or lessen the risk of the fluid running along the tubes, this it is sought to attain—1. By securing free dilatation of the cervix uteri before injecting, so that the fluid may readily run back into the vagina. For this purpose the preliminary use of laminaria tents is advised. 2. By using only graduated quantities of fluids, and injecting very gently and slowly. 3. By using a double canula, so as to secure a return current. To effect this the more surely, the openings of the canula at the uterine end are made at different levels. The author does not have much faith in the last rule. As the canula is liable to become choked up, the others should never be omitted. Notwithstanding their observance, accidents will occur.

The work is well written in almost every particular, and shows the author to be a master in the profession. There are are one hundred and sixty-nine wood-engravings illustrating the text.

Dictionary of Elevations, and Climatic Register of the United States. Containing, in addition to elevations, the latitude, mean annual temperature, and the total annual rain-fall of many localities. With an introduction on the orographic and other physical peculiarities of North America, by J. M. TONER, M. D., of Washington, D. C.

This is a really valuable compilation, gathered from many sources, containing a large amount of information. The author, however, tells us that "the work has been a labor of love, and undertaken chiefly for the purpose of placing within reach of the medical profession a record that may enable and induce professional men in different localities of the United States to observe, record, and contrast the influence of elevation, if it has any, on health and disease. When it is considered how completely altitude in every part of the world controls the natural productions of a region, and modifies or limits the types and species of animals and plants that exist there, it will not be thought strange that elevation should powerfully affect the health, vigor, habits, pursuits, and longevity of man."

Two new medical journals have made their appearance since our last issue: *The Missouri Clinical Record*, published at St. Louis, W. A. Hardway, M. D., Editor; and the *Virginia Medical Monthly*, published and edited by Landon B. Edwards, M. D., of Richmond, Va. Both journals present an unusually good appearance for new enterprises of this character.

A Treatise on Pharmacy. By EDWARD PARISH. Fourth edition. Enlarged and revised by THOMAS S. WIEGAND. Henry C. Lea, publisher.

Some important changes have been made in this edition of this well-known text-book and standard in pharmacy. Part I. has been almost entirely rewritten, taking up new topics, and embodying some which were formerly in other portions of the volume. Part II. has also been altered, and the order of the remaining divisions changed. These changes and additions have increased the size of the volume about one hundred and fifty pages.

The author begins by giving the arrangement of a dispensing store, describing minutely all the apparatus needed in an apothecary's store, the uses of the cellar, store-room, and laboratory. Next is a chapter giving the history and uses of pharmacopœias.

We have explained to us the method of manufacturing all kinds of pharmaceutical preparations, giving many valuable formulas. Part IV. is devoted to pharmacy in its relations to organic chemistry. Part VI. is especially valuable to physicians, one chapter being assigned to prescriptions, showing the intimate connection that necessarily exists between therapeutics and pharmacy. He well says, "the art of prescribing is the practical application of the knowledge of therapeutics, chemistry, and pharmacy to the cure of disease." The proper way to write a prescription is given, and then the way in which it should be filled and labeled. The book is a valuable one and should be in every physician's library, and is indispensable to the apothecary.

For sale by Robert Clarke & Co. Price $7.50.

Alphabetical Catalogue of Authors of the Library of the Surgeon-General's Office, Washington, D. C. By JOHN S. BILLINGS, M. D., Ass't Surg. U. S. A., in charge of Library.

This catalogue consists of three volumes, the third being a supplement. The library contains about 25,000 volumes and 15,000 pamphlets. The present catalogue gives about 50,000 titles, exclusive of cross-references.

The books are conveniently arranged on iron shelves in the fire-proof building of the Army Medical Museum. The plan of the catalogue and the management is similar to that of the Congressional Library. With pride we turn the leaves of this immense catalogue, and feel that it is a representative of a part of the work performed by our profession during the past few years.

Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States, for the fiscal year 1873. By JOHN M. WOODWORTH, M. D., Washington, D. C.

This report sets forth the re-organization and the regulations of the United States marine hospital service. It contains plans, elevations, and descriptions of some of the lately erected marine hospitals. "The one at Chicago is the finest structure of its kind in the United States. We find in it the first innovation on the old defective plan, of wards divided by closed corridors, which had been followed by the government since 1837. As Congress has indorsed the plan of hospital construction recommended in the first annual report of the Supervising Surgeon (1872), by providing for the erection, at San Francisco and New Orleans, of pavilion hospitals, to be constructed of wood, and of simple architectural design, it is probable that the Chicago Marine Hospital will be the last one constructed on a scale of such magnificence."

As a rule, we believe it is bad economy for the general government to build marine hospitals for sick and disabled seamen at the different harbors of the country, as all needed accommodations, care, and treatment can be obtained at very much less cost by contracting with municipal authorities or private hospitals. The report states that where the number of patients is sufficient to fairly employ such a staff and establishment, as it was at Cleveland, Detroit, and St. Louis, the returns show that the service is more economically administered under the marine service hospitals than under any other. The average per diem cost of the relief furnished at the ports mentioned, for the past two years, under the present supervision, is ninety-four cents, as against a general average of ninety-nine cents per diem for all relief furnished. We would like to inquire how far five cents (the difference) per diem of all the patients in those hospitals would go toward paying the interest on the money invested in those hospitals?

Where there are no suitable hospital accommodations to be obtained by contract, and the port is of sufficient importance to justify, we would favor a government hospital, and most heartily do we indorse the pavilion plan, the structure to be of wood and of simple design.

The report also contains an article by J. M. Toner, M. D., of Washington, D. C., on the distribution and natural history of yellow fever, as it has occurred at different times in the United States, accompanied by a map, which indicates the region where yellow fever has prevailed, either in an epidemic or sporadic form, since the settlement of our country. The author gives the elevation of each locality above the sea-level, and inclines to give much weight to the theory that diseases have geographical areas and limits, modified somewhat by topographical and climatic conditions, which determine the type of disease, as do climate and elevation the fauna and flora of a locality. The theory is supported by an abundance of statistics.

We next find an interesting case of double diaphragmatic rupture and hernia, reported by Thomas T. Minor, M. D., Surg. U. S. Marine Hospital Service, Port Townsend, W. T., illustrated by a photograph. Also, a report on Strictures of the Urethra, by C. N. Ellinwood, M. D., Surg. U. S. Marine Hospital Service, San Francisco, California.

A Practical Treatise on the Diseases of Children. BY J. FORSYTH MEIGS, M. D., and WILLIAM PEPPER, M. D. Fifth edition, revised and enlarged. Philadelphia: Lindsay & Blakiston, publishers. For sale by Robert Clarke & Co. Price $6.

The fact that this standard text-book has passed through four editions, and we are now called upon to notice a fifth, is commendation enough of itself to assure the profession of its value. The authors, not being satisfied with the abundant appreciation of the preceding editions, have almost entirely rewritten several important articles, among which may be mentioned that on diseases of the heart; on progressive muscular sclerosis; on the treatment of scarlet fever and of measles; on variola and the vaccine disease. New articles are found on pulmonary emphysema, pneumathorax, affections of the tonsils, retro-pharyngeal abscess, malarial fevers, and scrofula, which necessarily enlarges the work about one hundred and fifty pages. The authors give an introductory essay on the clinical examination of children, which, for the sake of the little ones and the credit of our profession, we wish could be placed in the hands of every practitioner. They show the difficulties that beset the physician in making a thorough examination. "The helpless silence of the infant, the willful silence or the loose and inconsistent answers of the older child, which lead astray the mind rather than guide it to true results, the agitation and fright often produced by an examination, rendering it impossible at times to ascertain the real state of the different functions of the economy, and further the difficulty of obtaining accurate and reliable accounts of the history of the case from the attendants, which combine to make the duty of the physician most perplexing, and unless he is gifted with a large share of patient and philosophic calmness, most irksome and trying to the temper. So great, indeed, are the difficulties encountered by some practitioners, who enter upon this branch of the practice of medicine without proper preliminary preparation, that they never overcome them. That it is possible to overcome, in a great measure, these obstacles, and to arrive at a correct diagnosis, in nearly all cases, is quite as true as that these obstacles really exist." The best methods to be used in obtaining the desired information, are clearly set forth, along with the most prominent diagnostic indications. Each subject in the book is complete, from the diagnosing of the disease and its treatment, to the final termination, either in recovery of the patient or its death. We can not but commend the work to the profession.

The Puerperal Diseases. Clinical Lectures delivered at Bellevue Hospital, by FORDYCE BARKER, M. D. New York: D. Appleton & Co., publishers.

The author of this book we recognize as one of the ablest clinical teachers of the present day, whose experience has been most extensive and varied—being one of the obstetricians in Bellevue Hospital for twenty years, at the same time engaged in an extensive private practice (largely diseases of women). One prominent feature in all of Dr. Barker's teachings is their eminent practicability, and delivered in the simplest language. Lecture I. is devoted to puerperal convalescence, the meaning of the term, the symptoms which interrupt normal convalescence, after-pains, the lochia, secondary hemorrhage from various causes, etc. Lecture II., the diet of puerperal women is taken up. Speaking of the theory (which we believe is fast passing away) that the puerperal woman is in an inflammatory condition, or in a state predisposed to inflammation, inculcated by most of the obstetric authorities from Celsus down to the present day, they consequently taught that a puerperal woman should be restricted to what is termed an antiphlogistic diet.

A change of practice more in accordance with sound physiological reasoning and good sense, is taking place. We recognize in the teachings of such clinicians as the author, one of the principal factors in producing the change. He says: "In general terms, give the puerperal woman as good nutritious food as she has an appetite for, and can easily digest and assimilate." On the subject of laxatives, the author departs from the beaten path of routine, where it is customary to give the puerperal woman a dose of castor-oil on the second or third day after confinement, saying that "the choice of the agent (if one is necessary) to be used for this purpose, must depend upon the special indication in each individual case. If a laxative be required simply on account of torpor of the bowels, an enema of warm water and castile soap thrown up the rectum very slowly and gently, is much better than any medicine administered by the mouth."

Interspersed through nearly all the lectures are clinical cases illustrative of the subject. We regard the work as a valuable addition to obstetrical literature, needing only to be glanced at to be appreciated.

A Treatise on Therapeutics, comprising Materia Medica and Toxicology, with especial reference to the application of the physiological action of Drugs to Clinical Medicine. BY H. C. WOOD, JR., M. D. Philadelphia: J. B. Lippincott & Co., publishers.

Notwithstanding the fact that there are already quite a number of really valuable works on materia medica, we regard this work as worthy of a place on the shelves of a good medical library. The plan of the work has been to make the physiological action of remedies the principal point in discussion, which, in order to accomplish and place it before the profession in a practical form, has required an immense amount of labor and observation, establishing "a law which governs the susceptibility to the action of drugs, in that the more highly specialized any system is, the more readily affected is it by a medicine. Thus the cerebrum of a man is far more highly organized than that of any other animal, and consequently he is far more sensitive to the action of drugs which affect the cerebrum than are the lower forms. Again, in the frog the spinal system is especially developed—probably, in proportion to the cerebrum, more so than in any other of the animals commonly experimented upon. In obedience to this law, we have resulting the action of opium—an action which has been considered the strongest proof of the hopelessness of any attempt to explain the effects of drugs upon a man by experiments on the lower animals. In man, opium causes deep stupor and relaxation; in the frog, tetanic convulsions. The explanation is, opium, in all animals, has a double action—one upon the cerebrum and one upon the spinal centers. In the frog, the latter is more highly organized; in man, the cerebrum being the most sensitive, stupor ensues in place of convulsions.

"A second law which seems to hold sway over the action of drugs upon different animals is, that great differences of function in a system affect its relation to drugs; thus in a herbivorous animal, the alimentary canal is very different from what it is in the carnivora, whose digestive organs in turn differ from those of man—the omnivora. Medicines which act upon the alimentary canal are apt to vary in their effects upon different orders of animals."

The physiological action of the various drugs have been established by actual observation, by the author, and placed in a most convenient form for reference.

We have received a copy of the *Constitution and By-Laws of the Alumni Association of the Albany Medical College*, and have been requested to call attention to the following paragraph in an accompanying circular:

"Your attention is therefore asked to the subject, and a careful perusal requested of the constitution and by-laws—adopted by the association—which accompany this circular. The executive committee desire that these may be placed in the hands of every graduate, and also propose making a complete catalogue of the alumni. It is therefore necessary that their present residences be ascertained, and to this end all graduates are requested to send to the secretary, *without delay*, their present addresses and also those of other graduates with whom they may be acquainted, especially those in the immediate vicinity."

We notice the following changes in the Faculty of the Medical College of Ohio:

Prof. James Graham, M. D., is now Emeritus Professor of the Theory and Practice of Medicine and Clinical Medicine.

Prof. Roberts Bartholow, M. D., has been transferred to the chair of the Theory and Practice and Clinical Medicine.

Prof. Samuel Nickles, M. D., transferred to the chair of Materia Medica and Clinical Medicine.

Dr. H. A. Clark, formerly Demonstrator of Chemistry, has been elected Professor of Chemistry.

Prof. Graham's services in the college will be, for the future, chiefly clinical. His long connection as teacher (twenty years) with the college, certainly allows him the privilege of being relieved from compulsory service, and that is all he desires. Especial clinical facilities and hours will be set aside for him.

Prof. Clark will devote *his entire time* to Chemistry and Chemical Analysis.

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LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.

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Original Communications.

Art. I.—Interstitial Keratitis and Inherited Syphilis.

By S. C. AYRES, M. D., Cincinnati, Ohio.

Mr. Hutchinson, in his valuable work on syphilitic diseases of the eye and ear, has collected a large number of cases in support of his theory that there are certain physiognomic peculiarities which are almost certain evidences of inherited taint. The difficulty in drawing positive conclusions from such statistics is, that the family histories are necessarily very imperfect and unreliable. Parents will prevaricate, even when they know that it is against their interest to do so, and thus conceal the truth, which is needed to make such reports valuable. In most cases, in private practice, it is not politic or proper to probe the family secrets too deeply, for it might expose an unfaithful husband or wife, and bring additional trouble and disgrace on the family.

We must judge many of these cases on general principles, taking into consideration the concomitant symptoms, and the family history, as far as it can be obtained. Occasionally, the family physician is able to give a positive history of acquired syphilis, and one such case goes far to support the suspicions of the same cause in other cases where the symptoms are similar, but where the family history can not be directly obtained. Mr. Hutchinson has had unusual opportunities, at the Moorfields Hospital, for observing these cases, and his aphorisms and general deductions are worthy the consideration of every physician.

The objective symptom which he regards as most characteristic of inherited specific taint, is the notched condition of the central upper incisors of the permanent set of teeth. Sometimes the lower ones are notched also, and all of the incisors have a peculiar yellowish-earthy color. When a case of interstitial keratitis occurs in a patient with the typical teeth, he considers the diagnosis beyond a doubt.

Among the other prominent symptoms are flattening of the bridge of the nose, scars on the cheeks and at the angles of the mouth, a protuberant forehead, a hazy condition of the corneæ, and, in some cases, deafness with or without otorrhœa.

In the twelve cases reported below, there is only one (case v) in which we have positive evidence of inherited syphilis, but our suspicions in case viii are quite well founded.

In only one case (case viii) were the teeth perfect and well formed. In cases vi and x, the permanent sets had not yet appeared, but the *first* sets had prematurely decayed. In all the other cases the teeth were more or less characteristic. Case ix was particularly so, and the keratitis was more severe than in any other case. In cases i, ii, iii, iv, ix, and xii, the peculiar expression of the face and condition of the skin were quite characteristic. In the others, the physiognomy was natural. Double keratitis occurred in all the cases, and left more or less haziness of the corneæ, excepting in the two youngest cases—vi and x. Deafness occurred in six of the twelve cases, but with otorrhœa reported in only two. In cases vi and viii, the deafness was total; in the others, partial.

In reviewing the family histories, as far as obtained, we find some points of interest.

The mother of cases ii and iii lost her first and third child—the the former being still-born, and the latter dying at the age of three weeks.

In the family of case v, the first child was healthy; the second died when six weeks old, with marked syphilitic rash, and the third child is the patient.

In the family history of case viii, four of the children are supposed to have been born before the father contracted syphilis. The fifth child is the patient; the sixth lived but six weeks, and had a rash on its body, and the seventh was still-born. Two, still younger, are living, and reported healthy.

The only other family history obtained is that of case x. Here the first child was still-born; the second lived three weeks, the third six weeks, and the fourth is the patient, and the fifth is living and well.

We have here, in these four families, twenty-one children born. We can exclude from consideration four of them, in the family of case viii, which are healthy, and who were, in all probability, born before the father contracted the disease. Of the remaining seventeen, three were still-born, and five died under six weeks of age. Five of those living have had interstitial keratitis, and but four are reported as healthy.

Certainly there is something to account for this large mortality. In one of the cases we have *positive* evidence of acquired syphilis. Were the others merely accidental, while the conditions of the patients were so similar?

If we could obtain the true histories of these cases, much light might be thrown upon this vexed subject.

CASE I.—*Interstitial keratitis; characteristic physiognomy; deafness.* H. L., æt. 13, is a pale, delicate boy, not well developed, and has an old look—the skin on his face being wrinkled. His nose is flattened, and his general expression is that of an old man. The upper middle incisors are short, peg-shaped, and converge, but are not notched. The corneæ are hazy, but not vascular. The pupils respond moderately to the effects of atropine. The trouble in his eyes came on about seven months ago. He also has had inflammation of the cavity of the tympanum, in both ears, and his hearing is dull. The drum membranes are opaque, but not sunken.

Family history: Father is dead, but mother is living, and in good health. He has a younger sister who enjoys good health, and has had no trouble in her eyes or ears.

CASE II.—*Interstitial keratitis; characteristic physiognomy in a brother and sister; notched teeth; suspicious family history.* G. A. M., æt. 10, presents the following conditions: She has interstitial keratitis in both eyes. The corneæ are opaque, and present that ground-glass appearance characteristic of this disease. Her eyes became first affected about a year ago, and up to that time she was considered by her parents to be quite healthy. Her

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teeth are very irregular, and the middle upper incisors notched. The bridge of her nose is flattened, and the whole expression of her face is characteristic of inherited taint, as described by Hutchinson. She is also quite deaf. The drum membrane, in both ears, is quite dull, and the cone of light wanting in both. There is a pinkish reflection through them, indicative of inflammation of the cavity of the tympanum. Hearing distance for watch, one and a half inches on either side.

CASE III.—G.'W., æt. 13, brother of above patient, has blepharitis marginalis and trachoma. The granulations are nearly cicatrized now, but his vision is very imperfect, as he has central opacities of both corneæ. His eyes have been more or less affected since childhood. He presents the peculiar physiognomy of his sister. His upper incisors are notched and stumpy. The tonsils are enormously enlarged, as well as the glands of his neck.

Family history: The first child was still-born. G. W. is the second. The third child died, about three weeks after birth, from inanition. It had a rash on its forehead and body. G. A. W. is the fourth child. There are two children younger, who are stated to be in good health. The mother is a delicate-looking woman, and presents no external evidence of acquired or hereditary specific disease. The father is reported to be in perfect health.

CASE IV.—*Characteristic physiognomy and teeth; otorrhœa.* M. G., æt. 11; lost the left eye, three years ago, from ulceration of the cornea. The right eye is in good condition now. She has otorrhœa, which she has had for several years past. The discharge is profuse and purulent. The external meatus, in both ears, is very much narrowed. It is so much narrowed, in the right ear, that it barely admits an ordinary-sized dressing-probe. Her physiognomy is peculiar, and indicates a want of mental development. She has but three upper incisors. One of these—the middle one—is distinctly notched. The other two are badly shaped. The lower incisors are tolerably regular. She has, at present, sores at the angles of her mouth, and numerous narrow linear scars running out into the cheeks. The scars are somewhat curved, and as they radiate from the mouth, give her face a peculiar old, wrinkled expression.

No family history.

CASE V.—*Inherited syphilis; diffuse keratitis; notched teeth; reliable family history.* The history of the following case was obtained from reliable authority and is interesting, as his father and mother were under the medical care of the informant for several years.

The mother of the boy contracted syphilis from her first husband, for which she was treated and apparently cured. She had one child by him, who lived to be about sixteen years old, when she died of consumption.

She remained a widow two years. The first child, as the result of her second marriage, was healthy. The second died six weeks after birth with well-marked syphilitic rash.

The third child, W. T., now eleven years old, had an eruption on his skin soon after birth. He is now a delicate, nervous, peevish boy, and very hard to manage. He has double interstitial keratitis. There is intense photophobia, and it is only with the greatest difficulty that the eyes are seen at all. His first set of teeth began to fall out as soon as they appeared. The upper incisors of the second set are badly developed and stumpy, and have a yellowish-earthy color. The lower incisors are all notched. He has hypertrophied tonsils and enlarged cervical glands.

One interesting feature of this case is, that the father of the boy died of *syphilis*, which he undoubtedly, in the opinion of his family physician, contracted from his wife. At the time of her marriage with him she exhibited no traces of the disease, nor has she shown any since, except through her children.

CASE VI.—*Double keratitis; inflammation of knee-joints; deafness.* J. L., æt. 5, was treated two years ago for kerato-iritis. He made a good recovery, there being only very slight opacities of the cornea remaining. At that time he had acute synovitis of both knee-joints.

He walks quite well now, and looks like a healthy boy. Within the past few months he has become very deaf, and has to be communicated with by means of signs. He is fast forgetting how to talk.

The drum membranes do not appear unnatural—are perhaps slightly more opaque than is usually seen in children His front teeth have decayed.

No family history.

CASE VII.—*Keratitis and iritis; notched teeth, without the characteristic physiognomy.* E. J., æt. 20, has interstitial keratitis, which began a few weeks ago. There is iritis in both eyes, with posterior synechiæ.

The middle incisors are notched. Her physiognomy is not strikingly characteristic of inherited specific disease, but she is evidently an unhealthy girl.

No family history was obtained.

CASE VIII.—*Interstitial keratitis and iritis in both eyes; deafness; healthy physiognomy and good teeth; suspicious family history.* E. D., æt. 11, is brought for advice as to deafness. She can not hear the loudest sounds, and has to be communicated with by means of signs. She has been deaf about one year, and is now losing her speech. She had slight otorrhœa about the time her hearing began to fail, and there is now a small perforation of the left membrana tympani.

There are crescentic calcareous deposits in both drum membranes, which are opaque, lustreless, and sunken.

She also has had double keratitis and iritis. There are firm synechæ in the right eye, but the left pupil dilates well. The corneæ are slightly nebulous.

Her physiognomy is not characteristic of inherited taint, and her teeth are well formed; but she has well-marked scars at the angles of her mouth.

Family history: She is the fifth child. the four older than she being healthy and well developed. The sixth child lived only a few weeks, and had a suspicious rash on its body; the seventh was still-born; the eighth and ninth are still living, and healthy.

Before the subject of this article was born, certain suspicious circumstances occurred, which lead my informer to believe that the father had contracted syphilis about that time.

CASE IX.—*Characteristic physiognomy, with notched teeth; severe keratitis.* R. R., æt. 17, has the marked physiognomy described by Hutchinson as characteristic of inherited taint. The upper incisors are symmetrically notched, and the lower ones are round and peg-like. She has the most violent form of kerato-iritis in her left eye. The cornea is apparently completely vascular, and in its center is a small yellowish infiltrated spot resembling onyx. Vision is reduced to bare perception of light. She has the same disease in the right eye, but in a much milder form. When she first came for treatment she had to be led to the office. At that time the left eye was her best, but it gradually grew worse in about the degree that the right one became better.

Unfortunately, no family history could be obtained.

CASE X.—*Interstitial keratitis; suspicious physiognomy; enlarged knee-joints.* L. L., æt. 5, has interstitial keratitis, which came on about four weeks ago. There is some haziness of the corneæ and injection in the ciliary region. She is a delicate girl, small for her age, but well formed. Her middle incisors decayed soon after they came in. Her knee-joints are enlarged, but not enough to interfere with locomotion.

Family history: The first child was still-born; the second lived two weeks, and the third, six; the fourth is the patient, and the fifth is now two years old and is healthy.

The father is a delicate looking man, and the mother is said to be in good health.

CASE XI.—*Keratitis and notched teeth.* E. L. C., æt. 10, has kerato-iritis and posterior synechiæ in both eyes. There are also precipitates on the posterior surface of the cornea in the right eye; none in the left. She is a pale, delicate girl, and rather precocious. The upper and lower middle incisors are notched.

No family history obtained in this case.

CASE XII.—*Interstitial keratitis; deafness; notched teeth; characteristic physiognomy.* M. Mc., æt. 21, has had defective eyes, and has been partially deaf for several years. He is a pale, delicate, badly developed young man, with that old look characteristic of inherited syphilis.

He has had interstitial keratitis and iritis in both eyes, and the corneæ are leucomatous. $v = \frac{15}{100}$ r. e. and $\frac{1}{20}$ l. e. The drum membranes are both opaque and lustreless, and have calcareous deposits on them. He has to be spoken to in a loud tone.

The upper incisors are notched in the characteristic manner; the lower ones are notched also, but in not such a marked degree.

No family history.

The treatment in these cases was simple, consisting of instillations of atropine, as it seemed indicated, and the exhibition of tonics, alteratives, and mercurials, as the condition of the patient demanded. Quinia was used where there was much photophobia.

The general disposition of interstitial keratitis is to run a certain course in spite of all treatment. In some cases it begins in one eye, and after a few weeks or months, attacks the other one. The cornea gradually becomes opaque or vascular, and progresses to a certain point and then begins to improve.

Good nutritious food is an essential part of the treatment, and exercise in the fresh air should be insisted on in every case.

Art. II.—Case of Oblique Fracture of Left Femur.—Patient moved by rail sixty miles without displacement two days after dressing.

By W. M. DOUGLASS, M. D., Toledo, O.

In the consideration of appliances to fractures, the one which will maintain the fragments in their proper relation, without danger of doing violence to the soft parts, and at the same time permit inspection of the parts, will recommend itself as possessing superior advantages.

In fractures of the long bones, the contractions of the voluntary muscles constitute the chief obstacle to the reduction and maintenance of coaptation. In many cases where reduction is easily accomplished, it would be very difficult to prevent displacement—although some risk to the soft parts be assumed—with the usual apparatus. But the hammock splint of Dr. Woods, of this city overcomes the tendency to displacement, without so much as concealing from view the region of the fracture, and for treatment of the lower extremities needs to be but once applied to be appreciated. The employment of this splint dispenses with the necessity of pressure, and can command the entire limb or any portion, and by its means of extension and counter-extension overcomes the contractions of the muscles.

In a fractured femur, the stimulus imparted by the jarring of a rail-car in motion, would overcome any inadequate extension, and the jerking of starting and stopping would have a tendency of itself to displace the broken ends, did not the apparatus command the limb. In report of case of J. B., I referred to the fact of moving a patient sixty miles by rail soon after the application of the hammock splint. On the 14th of November, 1873, I received a dispatch, stating "a man was injured at Gibsonburg, Ohio, supposed to have his thigh broken." I took the box containing the hammock splint, removed a short time previous from J. B.—a report of which case see LANCET of May; arrived at Gibsonburg; found J. H., employe of T. T. & E. R. R., to have sustained the following injuries: Some bruises on right foot and leg, and an oblique fracture of middle third of the left femur, occasioned by having his right foot caught by a car-wheel and he thrown across the track. I found the patient lying upon a bed, too short for his comfort, the bedstead some inches shorter than himself; but as it was desirable to take returning train to this city, I adjusted the apparatus in a short time, reduced the fracture, and left the patient as comfortable as the position he was forced to occupy by the bed would allow.

I visited him the following day, and to my great annoyance I found that the inside rod had turned, from the clamps not being sufficiently tightened. Fortunately, however, the rotation was not so great as to allow the hammock cloth to become detached from the hooks, and no damage had resulted. The rod was readjusted, and clamp so tightened as to prevent the recurrence of rotation.

The patient then informed me it was his desire to get to his home as soon as possible, and as it was necessary to change cars at Mansfield, I arranged to accompany him home on the following day. A litter of a couple of boards was constructed and covered by comforters, upon which the patient was placed and conveyed to the baggage-car.

The litter was supported upon a couple of boxes. The patient was so comfortable as to sleep part of the journey. The change was made at Mansfield without accident, and upon arrival at his home, I placed the patient in charge of a medical gentleman. There was no swelling or soreness in the fractured thigh, as the result of the jarring and jerking of this journey of more than sixty miles.

The splint was removed at the end of six weeks, and no after-dressing applied.

A few weeks ago I had the pleasure of receiving a visit from the patient, who testifies to the satisfactory result. I did not measure the limb to ascertain the amount of shortening, but from his manner of walking it must be very slight.

Art. III.—The Brain Power of Man—Has he two Brains, or has he only one?

By Dr. BROWN-SEQUARD.

The lecturer was appropriately introduced by Professor Henry, who stated that the lecture was one of the series generously provided for by Dr. J. M. Toner, for the discovery of new facts in medicine.

Dr. Sequard commenced by saying that his views, he hoped, being somewhat novel, would command attention. The facts he would dwell upon were new, probably would not be generally accepted, and perhaps would not be easily understood, by those not familiar with medicine.

Have we two brains? and, if so, why not educate both? The views of science upon this subject were different from his. The left side of the body was the side affording volition to the brain, and, *vice versa*, the right side of the brain afforded volition to the body. Eminent authorities had declared that either side of the brain was competent for this purpose.

But we use only one side, and, therefore, leave out of account one-half of brain matter. We owe due education to both sides of the brain, or, rather, to the two brains.

As to intelligence, the eminent authorities he had cited established the fact that either side of the brain was competent for full development of the faculties. There were many persons of two minds, because they were never able to make up their minds. Some men claimed to be rational while they were insane. There were many cases that show clearly that there were two brains. He had known a boy in London that manifestly had two brains, whose peculiarities he described. He would fall into a comatose state, and suddenly open his eyes brightly, inquiring of his mother why he was not introduced to the gentleman who was present while he was asleep. Again, the lecturer saw him when the boy recognized him. He had two mental lives. He knew nothing of what occurred in his sleeping condition, when fully awake; and when in the latter condition, he knew what had occurred when in the former. The lecturer had seen three cases of this kind.

As regards faculty of speech, the fact that we had two brains was not so easily proved. The loss of the faculty of expression depends upon disease of the left side of the brain; and this proves that the right side is distinct.

As regards sight, a theory has been put forth by a celebrated physician of London that the right side of the base of the brain is the center of sight. The inner half of the right eye and the outer half of the left eye have the base of the brain as the center. A disease in the left side of the brain, where the optic nerve touches, would therefore affect only one-half of the brain. Notable cases were given in which parties had seen but one-half of certain objects that they gazed upon. If the disease exists only in the left side of the base of the brain, only one-half of the eye will be affected. So there are many cases that go to sustain the philosophers. But we do not accept conclusions unless theory is thoroughly supported.

There were three series of facts, but one would be enough, to show that the theory should be rejected. Diseases of the brain, where the optic nerve touches, would not be sufficient to cause loss of sight. One side of the brain would be sufficient to sustain sight. An alteration of any portion of the nervous system, acting upon other parts, can produce disease in that part. Injury to the spinal cord would produce loss of sight on either side. There was nothing more common than the loss of sight temporarily in children who suffered from worms in the stomach. Any injury in one half of the brain can exist without producing loss of sight. Either half of the brain may, therefore, serve to sustain sight.

As to the voluntary movements, these depended upon the action of the body. Yet there were many small muscles which were not affected in cases of paralysis. There were cases on record in which it was shown that the lower lobe of the brain could be destroyed without affecting these voluntary movements. There were several such cases. We must, therefore, look on one-half of the brain as being sufficient to sustain voluntary movements on both sides of the body. An irritation in any part of the brain may affect any part of the body, and an irritation in any part of the body can produce paralysis in another part. The irritation could also act upon remote parts. This shows that the power of will does not control the entire action of the body. When paralysis occurs it depends upon irritation.

The same reasoning applies to sensation. There were thousands of cases affecting the brain that did not affect the feeling. Passing these facts in review, we find vast differences, owing to the fact that one half of the brain was developed for certain things and the other half for other things. To the left side of the brain belonged the faculty of expressing ourselves by speech. Articulation, depended in great measure upon the left side of the brain. Difficulties in the mechanical point of speech were more frequently found when the left side of the brain was diseased. It was the mental part that was lost, and not the mere mechanical action. The left side of the brain was also the motive power of gesture. When the left side was diseased, patients lost the power of gesticulation.

As regards writing, it was lost more frequently in diseases of the left side of the brain. The right arm was paralyzed by diseases of this side. Many thus diseased could not write from memory, although they could use their fingers and copy. In those cases it sometimes occurs that persons could not write at all.

Intelligence depends more upon the healthfulness of the left side than of the right side of the brain. The right side of the brain in some cases has the power of the left, if properly developed. This serves to hysterical developments and to nutrition of the body. One, the left, applies to mental; the other, to the natural life.

The right side of the brain operates upon the limbs in cases of paralysis and other diseases; also, upon disturbances in the lungs, liver, and other parts. Hysterical and emotional symptoms are more common in cases of disease of the right side of the brain; out of 120 cases of paralysis that came under the lecturer's observation, there were 96 caused by disease of the right side. An alteration of the retina of the eye will come more frequently from diseases of this side of the brain. Out of 69 cases of convulsions of the eyes, 47 were due to diseases of the right side. Death occurs much more frequently by disease of the right side of the brain, and in case where patients do not die, it will produce more extensive and enduring paralysis.

All this shows, not that the two sides of the brain differed originally, but that there were different developments of each. The left side of the brain was much larger than the right side. If a person went frequently to the same hatter, he would find that his hat had from time to time to be enlarged. There was no question that the brain grew. By studying a particular subject the person became more proficient, and the brain was more fully developed.

There was no doubt that the left side of the brain predominated in our system. Our being right-handed showed it. There was no population in the world that was not right-handed. The right hand of the body was mostly used. Left-handed individuals used the right side of the brain, showing the connection between these things.

There was primitively a difference between the two brains. In children, convulsions were sooner developed in the left than in the right side of the brain. This was attributable to excess of blood in the left side. Parrots roosted on the right legs, and their talking power came from the left side of the head.

There were four vital points to be considered. The first was that asphyxia was connected with the left side of the brain in persons that were right-handed, and with the right side in those that were left-handed. The second point was that children who were first learning to talk, if disease came in the left side of the brain, learned to talk just as well with the right side of the brain. Though losing half of the brain, they got along just as well.

This proved that the right side could be educated, with the left hand for execution. The third point was that four out of every hundred left-handed persons learned to write with the left hand; therefore, the left side of the brain, even with persons left-handed, could be educated better than the right side. The fourth point was that the leg was rarely so much affected by paralysis as the arm. He, however, would pass over this argument, as it could only be understood by medical men.

If the lecturer had established that we had two brains, then they should be developed. If we could develop the legs and arms of both sides, we could develop both sides of the brain. If we gave as much attention to the left side of the body as we do to the right side, we would fully develop our two brains. The important point, therefore, would be to make children use both sides of the body—alternately using the right and left arm and the right and left leg equally. There would be no difficulty in thus training children to full development.

Even adults who had lost speech by disease of the left side of the brain, could regain the power by cultivating the right side. In gesture, persons who had lost the use of the right arm could be trained to use the left. If children were thus trained, we would have a sturdier and healthier race, both mentally and physically.

Art. IV.—Of a late Epidemic of Child-bed Fever; together with an Inquiry into the Connection, said to exist, between Puerperal Fever and Erysipelas.

By THOMAS C. MINOR, M. D., Cincinnati, Ohio.

[*Continued.*]

FLORIDA.—That beautiful land, where the eternal kiss of a summer's balmiest sunshine lingers on the lips of a warm, tropical nature, scented with the breath of incense-breathing exotics, musical with the tintinnibulations of richly-plumaged warblers. Land of lazy, tremulous languors, where the weary invalid convalesces, while dreaming the time away in a delicious *dolce far niente* state! If Ponce de Leon did not carry back with him to "Old Andalusia" any of the waters of the fabled Fountain of Youth, he must, at least, have taken a new lease of life during his short sojourn amidst your blossoming orange-groves!

Extending from the 25th to the 35th degree of north latitude, and from the 80th to the 88th degree of longitude west of Greenwich at its northern border, the State of Florida dips southward and separates the waters of the Atlantic from the Gulf of Mexico. A hypsometric sketch of the state shows, that at no point does it reach an altitude of 400 feet above the sea-level. The mean monthly temperature at different points I have selected, according to Blodgett, reads as follows: At Jacksonville, on the St. Johns river (latitude 30° 15′, longitude 82°, altitude above sea-level of 14 feet): January, 56.4°; February, 56.1°; March, 64.2°; April, 67.8°; May, 76.4°; June, 79.4°; July, 82.3°; August, 82.4°; September, 80.7°; October, 68.7°; November, 64.1°; December, 54.2°. At St. Augustine, on the coast, and farther south (latitude 29° 48′, longitude 81° 35′, altitude 20 feet above the sea-level): January, 57°; February, 59.9°; March, 63.3°; April, 68.8°; May, 73.5°; June, 79.3°; July, 80.9°; August, 80.5°; September, 78.6°; October, 71.9°; November, 64.1°; December, 57.2°. At Key West, one of the chain of small islets at the extreme southern territory of the United States (latitude 24° 32′, longitude 81° 48′, altitude 7 feet above the sea-level), as follows: January, 69.5°; February, 70°; March, 72.6°; April, 75.2°; May, 78.9°; June, 81.2°; July, 82.5°; August, 82.7°; September, 81.3°; October, 77.4°; November, 74.7°; December, 70.5°. The reading, by seasons, at these different points, can then be arranged thus, as in the following table:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Jacksonville	69.5°	81.4°	71.2°	55.6°	69.4°
St. Augustine.......	68.5	80.3	71.5	58.1	69.6
Key West..........	75.6	82.1	77.8	70	76.4

The fall of rain, at St. Augustine, for the different seasons, reads as follows: Spring, 5.90; summer, 10.54; autumn, 9.56; winter, 5.80; or a total annual rain-fall of 31.80 inches.

I have been unable to find any special work regarding the epidemics of Florida.

Study of the Table.—Out of a total population of 187,748, the mortality from erysipelas in the State of Florida (1870) was 9. During the same time 5 women died of puerperal fever. As regards sex, the decedents from erysipelas were 5 males and 4 females, all native born (7 whites, 2 colored). The decedents from puerperal fever were all native born (3 whites, 2 colored). Autumn and winter were the seasons of greatest mortality from erysipelas (3 each). Winter the season of greatest mortality from puerperal fever (2.) Months of greatest mortality from erysipelas, June and September (2 each). The deaths from puerperal fever were never more than one in any month.

Reflections.—Florida has a total population, as before stated, of 187,748 souls. In proportion to population, the mortality from erysipelas is greater than in any of the Southern States hitherto enumerated, while the mortality from puerperal fever is less than some—Georgia for instance. The colored population of Florida numbers 91,689 (45,594 males and 46,095 females), or almost one-half the population; from whence it will be seen that the mortality from both diseases was less, in proportion to population, among the whites than among the blacks.

We shall now look into Alabama.

ALABAMA.—Lying between the 30th and 35th parallels of north latitude, and extending from 85° to about 88° 30′ longitude west of Greenwich, is the State of Alabama. A hypsometric sketch of the state shows it to be almost wholly less than 400 feet above a sea-level. In northeastern Alabama, however, the state is decidedly mountainous, and reaches an altitude of from 800 to 1,500 feet near the town of New London.

At Erie, Greene county, in northwestern Alabama (latitude 32° 40′, longitude 88°, altitude 200 feet above the sea-level), the mean monthly temperature, according to Blodgett, reads as follows: January, 45.4°; February, 51.4°; March, 58.9°; April, 62.9°; May, 73.9°; June, 78.2°; July, 80.5°; August, 80.5°; September, 75.3°; October, 64.8°; November, 53.2°; December, 47.2°. At Mobile, at the junction of Mobile river and Mobile Bay (latitude 30° 42′, longitude 87° 59′, altitude 25 feet above the sea-level), in the southwestern portion of the state: January, 57.6°; February, 57.9°; March, 62.4°; April, 70.6°; May, 77.4°; June, 81.6°; July, 83.7°; August, 82.9°; September, 80°; October, 69.5°; November, 62.6°; December, 56.3°. Reading by seasons it would be as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Erie....................	65.2°	79.7°	64.4°	51.3°	65.2°
Mobile...............	70.1	82.7	71	57.3	70.3

At Huntsville the fall of rain by seasons reads: Spring, 14.88; summer, 14.58; autumn, 9.99; winter, 15.43 inches—giving a total annual rain-fall of 54.48 English inches.

There have been epidemics of erysipelas at various times in the history of the state; as, for instance, in the spring of 1844 at Whitesbury, and again in February, 1845, at Courtland.—(Refer to Drake.)

Study of the Table.—Out of a total population of 996,992, the mortality in Alabama, in the census year 1870, from the single cause of erysipelas, was 51. During the same time 53 women died of puerperal fever. As regards sex, the decedents from erysipelas numbered 30 males and 21 females. These were all native born (32 being whites and 21 colored). The decedents from puerperal fever were all native born (32 whites and 21 colored). The season of greatest mortality from erysipelas was spring (17). The season of greatest mortality from puerperal fever was spring (19). The month of greatest mortality from erysipelas was March (7). The month of greatest mortality from puerperal fever was May (7).

Reflections.—As regards population, the mortality from both diseases is not excessive; and no epidemic of either disease could have prevailed to any great extent. Almost half the population of the state is colored, there being 475,510 persons of African descent (233,677 being males and 241,833 females). From this statement it will be seen that the mortality from both diseases is greater, in proportion to population, among the whites than among the colored.

The next state in order is Mississippi.

MISSISSIPPI.—Lying between the 30th and 35th parallels of north latitude, and between longitude 88° and 92° west of Greenwich, is the State of Mississippi. A hypsometric sketch of the state shows, that almost all the southern portion of it has an elevation of less than 400 feet above the sea-level. In the northern portion of the state, however, the land becomes higher and reaches an altitude of from 800 to 1,600 feet at points.

At Natchez, in southwestern Mississippi (latitude 31° 34′, longitude 91° 28′, altitude 246 feet above the sea-level), the mean monthly temperature, according to Blodgett, reads as follows: January, 52.3°; February, 54.5°; March, 59.7°; April, 69.8°; May, 74.5°; June, 80.8°; July, 81.3°; August, 80.9°; September, 77.2°; October, 67°; November, 57°; December, 49.7°; or a mean temperature by seasons as follows: Spring, 68°; summer, 81°; autumn, 67.1°; winter, 52.2°; or an annual mean temperature of 67.1°. At Natchez there is a rain-fall of 14.92 inches in spring, 13.06 in summer, 13.33 in autumn, 16.44 in winter, or a total average rain-fall of 57.75 English inches per annum.

Epidemics of erysipelas have occurred in Mississippi, from time to time; and records are extant of one in 1843–44, in the valley of the Big Black, at Jackson, Vicksburg, Warrenton, Grand Gulf, and Port Gibson; again, in 1848–49, it prevailed as an epidemic near Vicksburg during the winter-time.—(Refer to Drake.)

Study of the Table.—Out of a total population of 827,922 persons, 36 died from the single cause of erysipelas, in the census year 1870, in the State of Mississippi. During the same time 45 women died from puerperal fever. As regards sex, the decedents from erysipelas numbered 20 males and 16 females. Of these 34 were native born (28 whites and 6 colored), while 2 were foreigners. Of the decedents from puerperal fever, 44 were native born (24 whites and 20 colored), and 1 was a foreigner. The season of greatest mortality from erysipelas was spring (14). The season of greatest mortality from puerperal fever was spring (22). The month of greatest mortality from erysipelas was May (7). The month of greatest mortality from puerperal fever, May (9).

Reflections.—The decrease in the mortality rate of erysipelas, and the increase in that of puerperal fever, as we reach the warmer latitudes of the far Southern States, will have no doubt been already observed. We see that in Mississippi both diseases were most prevalent, at the same time, in 1870, and that at the same time no extraordinary epidemic tendency to either disease could have existed. The colored population of Mississippi numbers 444,201 (of whom 217,722 are males and 226,479 females). From this statement it will be seen at a glance, that the white population, embracing less than one-half the total population, suffers more in proportion than the colored population from both diseases.

We now turn to Louisiana.

Louisiana.—Stretching from the 29th to the 33d parallel of north latitude, and lying mostly between longitude 89° to 94° west of Greenwich, is the State of Louisiana. A hypsometric sketch of the state shows, that at no point does it reach an altitude of 400 feet above the sea-level; in fact, most of the state is very low and swampy, and after a rise in the Mississippi or its tributaries, it is not unfrequently the case that vast areas of land are submerged and turned for the time being into swamps.

The mean monthly temperature at various points selected, according to Blodgett, reads as follows: At the Delta of the Mississippi (latitude 29° 25′, longitude 89° 30′, no altitude), as follows: January, 59.5°; February, 60.1°; March, 62.4°; April, 72.9°; May, 77°; June, 82°; July, 82.9°; August, 81.5°; September, 80.5°; October, 73°; November, 63°; December, 59°. At New Orleans, Orleans parish, on the Mississippi river (latitude 29° 57′, longitude 90°, altitude 10 feet above the sea-level): January, 54.4°; February, 54.5°; March, 61.6°; April, 67.8°; May, 74°; June, 78.7°; July, 80.4°; August, 79.7°; September, 77.1°; October, 69°; November, 58°; December, 56°. At Natchitoches, in central Louisiana (latitude 33° 33′, longitude 93° 32′, altitude 100 feet above the sea-level): January, 50.6°; February, 52.7°; March, 59.4°; April, 67.4°; May, 73.7°; June, 80.2°; July, 82.2°; August, 81.3°; September, 76.1°; October, 65.9°; November, 56.7°; December, 49.7°. By seasons, thus:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Delta of Miss......	70.8°	82.1°	72.2°	59.5°	71.2°
New Orleans.......	67.8	79.6	68	55	67.6
Natchitoches	66.8	81.3	66.2	51	66.3

The mean annual rain-fall and the rain-fall by seasons read as follows, at New Orleans: Spring, 13.26; summer, 16.11; autumn, 10.79; winter, 12.15—giving an annual mean of 52.31 English inches.

Epidemics of erysipelas have occurred in Louisiana. Drake makes mention of one having occurred at La Charité Hospital, New Orleans, in the winter of 1848–49.

Study of the Table.—Out of a total population of 726,915 persons, the mortality from the single cause of erysipelas, in the State of Louisiana, during the census year of 1870, was 52. Within the same period, 24 women died from puerperal fever. Regarding sex, the decedents from erysipelas numbered 21 males and 31 females. Of these, the nativity of 1 was unknown; 45 were native born (35 whites, 10 colored), and 6 were foreigners. Of the decedents from puerperal fever, 20 were native born (11 whites and 9 colored), and 4 were foreigners. The season of greatest mortality from erysipelas was winter (17). The season of greatest mortality from puerperal fever, spring (9). The months of greatest mortality from erysipelas, May and September (each 8). Month of greatest mortality from puerperal fever, March (4).

Reflections.—Louisiana has a colored population of 364,210 souls (178,784 males and 185,426 females); from whence it will be seen that more whites die from both diseases, in proportion to population, than do colored persons. The fact that the populous city of New Orleans is in Louisiana, probably accounts for the increased mortality rate from erysipelas and puerperal fever in that state as compared with other Southern States heretofore under discussion. Louisiana has also a foreign-born population of over 60,000 persons.

Texas being the next state in order, we shall now look into the heavy mortality existing there.

TEXAS.—Extending from 26° to about 36° 30′ of north latitude, and lying between 94° and 107° longitude west of Greenwich, is the "Lone Star State." A hypsometric sketch of the state shows, that along the coast-line on the Gulf of Mexico, the state has an elevation of less than 400 feet above the sea-level. The country becomes higher in the central portion of the state, reaching an altitude of 1,000 feet or so. In western and northwestern Texas the country becomes hilly and even mountainous, and reaches an altitude of 2,000 feet or more above tide-water.

At Galveston, on the coast (latitude 29° 18′, longitude 94° 46′, altitude 0), the monthly temperature, according to Blodgett, reads as follows: January, 48.1°; February, 58°; March, 63.5°; April, 70°; May, 78.7°; June, 80.7°; July, 83°; August, 83.3°; September, 78.3°; October, 73.1°; November, 60.2°; December, 55.6°. At Corpus Christi, farther south (latitude 27° 07′, longitude 97° 27′, altitude 0): January, 56.3°; February, 57°; March, 66.6°; April, 69.8°; May, 77.9°; June, 82°; July, 82.5°; August, 83.1°; September, 81°; October, 73.4°; November, 64.9°; December, 56.9°.

It will thus be seen that the temperature, arranged by seasons, would read as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Galveston..........	71°	82.5°	70.2°	53.8°	69.4°
Corpus Christi....	71.4	82.5	73.1	56.7	70.9

At Matamoras, on the Rio Grande river, and at the extreme southern part of the state, on the Mexican frontier, the fall of rain, at the different seasons of the year, reads as follows: Spring, 3.97 inches; summer, 10.20; autumn, 15.75; winter, 5.25—giving a total yearly rain-fall of 35.17 English inches.

Study of the Table.—Out of a total population of 818,579, there died, from the single cause of erysipelas, 91 persons in Texas (census year 1870). During the same period of time 86 women perished of puerperal fever. As regards sex, the decedents numbered 47 males and 44 females. Of these 89 were native born (82 whites, 7 colored), and 2 were foreigners—one being a German, and the other one came from the north of Europe. Of the decedents from puerperal fever, 81 were native born (67 whites, 14 colored), and 5 were foreigners. Of the latter, 3 were Germans—one was from Great Britain, and another was from the north of Europe. The season of greatest mortality from erysipelas was winter (26). The season of greatest mortality from puerperal fever was winter (30). The month of greatest mortality from erysipelas was January (11). The month of greatest mortality from puerperal fever was February (16).

Reflections.—A remarkably heavy mortality from erysipelas and puerperal fever, if we compare Texas with the balance of the Southern States heretofore enumerated. Texas had a total population of 818,579 persons in the year 1870. Of this population, 253,475 (126,278 males and 127,197 females) were colored. From this it will be seen that more whites die from both diseases, in proportion to population, than do colored persons. This fact we have noticed in all the Southern States. We have also noticed, that while erysipelas seems to carry off very few *male* negroes, the *female* colored population appears to suffer some from puerperal fever. This seems to be the case, not only in Texas, but through the whole "South." The state had a foreign-born population of over 60,000 in the last census (1870).

Let us now turn to the District of Columbia, which, although not a state, is certainly entitled to as much consideration as Rhode

Island and Delaware; that is, if we are to judge from the population. With this will be finished our "Southern States," and we shall then, after a short recapitulation, turn to the "Mighty West."

DISTRICT OF COLUMBIA.—Lying on the left bank of the river Potomac, and covering an area of about 60 square miles, is the District of Columbia. The District of Columbia contains Washington city and Georgetown within its limits; hence the heavy mortality from both diseases, which is due, no doubt, to the hospital and ordinary city influences.

Washington city (latitude 38° 53′, longitude 77° 2′, altitude 80 feet above the sea-level) has a mean monthly temperature, according to Blodgett, as follows: January, 34.1°; February, 36.7°; March, 45.3°; April, 55.7°; May, 66.3°; June, 74.4°; July, 78.3°; August, 76.3°; September, 67.7°; October, 56.7°; November, 44.8°; December, 37.3°—giving a temperature, at given seasons, as follows: Spring, 55.8°; summer, 76.3°; autumn, 56.4°; winter, 36.1°; or a mean annual temperature of 56.1°. The fall of rain and melted snow, at Washington city, as given in English inches and fractions, reads as follows: Spring, 10.45; summer, 10.52; autumn, 10.16; winter, 11.07; or, yearly 41.20 inches.

Study of the Table.—Out of a total population of 131.700 persons in the District of Columbia (census year 1870), 13 died of erysipelas. During the same period 6 women died of puerperal fever. As regards sex, the decedents from erysipelas numbered 6 males and 7 females. Of these, all were native born (11 whites and 2 colored). Of the decedents from puerperal fever, the nativity of one was unknown, one was a German woman, and the balance were native-born whites (4). The season of greatest mortality from erysipelas was spring (4). The season of greatest mortality from puerperal fever was winter (4). The month of greatest mortality from erysipelas was March (3). The month of greatest mortality from puerperal fever was December (2).

Reflections.—No very evident connection seems to exist here between the two diseases, while the season of the greatest mortality from one disease preceded that of the other. Very nearly one-third the population is colored, and hence the mortality from both diseases is much greater among the whites than the blacks.

RESUME.—With the exception of Maryland, Delaware, and Virginia, which properly belong to the "Middle Atlantic States"—(Guyot)—the states just enumerated form what is known as the collection of "South Atlantic and Gulf States." According to

Guyot: "These states lie along the coast south of Chesapeake Bay. Texas and nearly all of Louisiana lie west of the Mississippi. Each state east of the Mississippi, except Florida, is crossed near the center by the ridge separating the low lands of the coast from the high lands of the mountains. The low lands, as in the former section, are either sandy or marshy. *Florida* and *Louisiana* are wholly low land. The greater part of Mississippi is also low. These sections include the warmest part of the United States, and, excepting in the northwestern part of Texas, the climate is very moist. The winter is very mild in all the states. In the southern part of Florida and Texas there are the regular rainy and dry seasons of hot countries."

Study of the Table.—If we now study the total mortality from both diseases, in what we have classed as the "Southern States," in the same manner as we have the other sections of the Union, we shall see the following to be the result of our recapitulation: The total number of deaths from erysipelas, in the Southern States, in 1870, was 499. During the same time 450 women died from puerperal fever. The season of greatest mortality from erysipelas, in this section of our country, was spring (151). The season of greatest mortality from puerperal fever was spring (162). The month of greatest mortality from erysipelas was May (58) The month of greatest mortality from puerperal fever was April (57).

Reflections.—Some curious facts will be noticed, by glancing over the total mortality of the different sections heretofore enumerated. It is seen, that in the Southern States, having more than twice the population of New England, erysipelas decreases. This fact is more marked than ever, if we take off the mortality of Virginia, Maryland, and the District of Columbia, which geographically belong to the Middle Atlantic section. Making the same calculation with regard to puerperal fever, we find it maintains its claim in the Southern States; and, in proportion to population, bears about the same relative proportion as it does to the Middle Atlantic section. To be more explicit, the following propositions are verified by the census tables of 1870:*

1. *Erysipelas increases from the south to the north.*
2. Puerperal fever increases from the north to the south.

Again, *erysipelas is most prevalent where there is the least puerperal fever.* Now this is a singular fact, considering the claim is made of an intimate connection between the two diseases. But let us still look again, and we find in the Southern States, wherever there was a large mortality from puerperal fever, there was undoubtedly *a corresponding increase in the erysipelas mortality*. Take Alabama, North Carolina, and Texas as examples of this.

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* These propositions refer only to the Northern Atlantic, Middle, and Gulf States.

The comparative immunity from both diseases of the colored population (as before noticed in the New England and Middle Atlantic sections) is again brought prominently before our eyes. The entire colored population of the United States, in 1870, was 4,880,009. Of this number 3,713,327 lived in the southern section; hence it is seen that more than three-fourth of our *entire colored population*, constituting at least two-fifths of the total population of this southern section, suffer less mortality from these causes, in proportion to population, than did the whites. A singular fact in this connection, heretofore noticed, is that *so few colored males and females die from erysipelas*, while quite a number of colored females die from puerperal fever. The link of connection shows a weak point here again.

Alabama, Texas, and Georgia, which contribute most largely to the mortality from both erysipelas and puerperal fever, in this southern section of country, also contribute *almost all the mortality from cerebro-spinal fever* during the same period. This fact can be verified if the reader will refer to an article written by myself for a former number of this journal.* ·

As the foreign-born population of this section, all told, only numbers 282,045 persons, scattered all through this broad section, no especial attention will be given to them at this point.

We have now treated in detail 1.616 deaths of erysipelas and 889 deaths from puerperal fever, which occurred in our eastern, southeastern, and southern country in 1870.

We shall now turn to the deaths which occurred in the great interior valley of this continent.

SECTION THIRD.

WESTERN STATES.

We come to the study of erysipelas and puerperal fever as they appear in the younger states of the Union, in the "Great West."

A glance over an atlas of the United States will show the exact geographical position of the section we now propose to discuss. On the far eastern portion, we have the Alleghany Mountains, separating eastern from western Virginia, while running through eastern Kentucky and eastern Tennessee are the Cumberland Mountains. On the north, we have the great lake region and British America. On the south, northern Texas and northern Mexico; while the western border, or Pacific coast line, touches that great western waste of golden waters which ebbs away toward the setting sun. Spreading over an immense amount of territory, with an ever-changing climate and diversified surface, traversed at places by mighty rivers, while here and there gigantic ranges of mountains rear their snow-capped tops 10,000, 12,000, and even 13,000 feet above the sea-level. Again, we have long stretches of prairie-land, extending miles and miles, as level as a table, and destitute of forests. Again, the low country of southern California, where the changes of climate are scarcely apparent, the seasons and months merging into each other so gradually that the difference in temperature is scarcely noticed, in the eternal summer that reigns in that enchanted land. The most interesting study in this New World, whose earliest civilization dates back scarcely a century, will be that of the two diseases we have been treating. Whether these diseases follow in the wake of the emigrant, and are carried along with our white population as in a resistless tide it is borne westward, is a thing to be studied not without interest. And, in this connection, the writer wishes to remark, that he has, for some time back, had a theory that these immigrants who settle in the far West carry with them a natural constitutional predisposition to certain diseases. To be more explicit, it has been discovered lately, that in certain Norwegian settlements in Wisconsin, that leprosy has developed itself in Norwegian settlers. This taint of diathesis, if we may be allowed to use the expression, is certainly imported with the immigrant. The leprosy, it has been also said, has developed itself among Chinese settlers of California. I have myself most abundant proof that, for years back, the German population of my native city (Cincinnati) have suffered greatly, out of all proportion to population, from puerperal fever and erysipelas; not that the diseases have prevailed to any great extent, but that almost all the decedents from them were Germans by birth or descent. I shall give the figures for this statement near the close of my article. This is a most important point; for if it could be proved that the inhabitants of various countries carried the undeveloped germs of certain diseases prevalent in their native lands along with them to far-off distant climes, a new study would be opened to us. Leprosy is common in Norway and China. Erysipelas is very common in Germany. It may be claimed that one disease is diathetic and the other zymotic; but, "What's in a name?" It is a well-known fact, that our European emigrants travel along their own isothermal lines usually, from east to west. Thus, we see the Swede and Norwegian settling in Maine, Minnesota, Wisconsin, and northern Michigan; the Englishman, Scotchman, and Irishman, taking the northern Atlantic and eastern middle section: the German going farther south, to the Central, Middle, and Southwestern States; while the Frenchman, Italian, and Spaniard seek the far Southern States, and the poor Greek is content to settle in the city of New Orleans. Seeking, thus naturally, a climate as near as possible like the one in their native land, is it strange that, having a natural predisposition to a certain kind of disease, that *even in a new country* the climatic conditions are such as to redevelop certain diseases? In such a case the climate could not be held directly responsible. In the study of the lately settled Western States, we shall look into this point as far as is possibly practicable, with the limited amount of statistics we have on hand.

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* Refer to "Cincinnati Lancet and Observer," December, 1873.

Without further digressing from the immediate subject under discussion, we shall now take up the study of erysipelas and puerperal fever as they prevailed together in the "West," during 1870, and in the order in which I have arranged on the following supplementary table of Western States. We shall commence with the State of Ohio.

OHIO.—Lying between 38° 30′ and 42° north latitude, and 80° 30′ and 85° longitude west of Greenwich, is the State of Ohio. A hypsometric sketch of the state shows it to have an elevation of from 500 to 1,100 feet above the sea-level.

According to Blodgett, the mean monthly temperature, at various points, reads as follows: Cincinnati (latitude 39° 07′, longitude 84° 30′, altitude 550 feet above the sea-level), January, 30°; February, 34.4°; March, 43.9°; April, 57.6°; May, 61.3°; June, 71.2°; July, 74.5°; August, 73.3°; September, 68.3°; October, 55.1°; November, 41.7°; December, 34.5°—thus giving a spring temperature of 54.3°; summer, 73°; autumn, 55°; winter, 32.9°; or a mean annual of 53.8°. At Hudson (latitude 41° 15′, longitude 81° 25′, altitude 1,131 feet above the sea-level): January, 28.1°;

February, 29.3°; March, 37.8°; April, 51.5°; May, 58.1°; June, 67.8°; July, 72.9°; August, 69.8°; September, 61.5°; October, 48°; November, 35.6; December, 29°—thus giving a spring temperature of 49.1°; summer, 70.2°; autumn, 48.4°; winter, 28.8°; or a mean annual temperature of 49.1°.

At Cincinnati, the fall of rain and melted snow, at the different seasons, reads as follows: Spring, 12.14 inches; summer, 13.70; autumn, 9.90; winter, 11.15—thus giving a total mean annual fall of 46.89 English inches. Cincinnati is in the extreme southwestern corner of the state, while Hudson is in the far northeastern portion.

Epidemics of erysipelas and puerperal fever are mentioned by Drake (*loc. cit.*), Dawson (*loc. cit.*), and others. Dr. H. G. Cary, of Dayton, Ohio,* says: "Erysipelas made its appearance in October, 1843, at Dayton, and continued in an epidemic form until the following May. The disease was confined mainly to adults—pregnant females being most obnoxious to its influence. Premature labor was often induced, followed by fatal peritonitis. Few parturients escaped." Again, in another part of his article, Carey says, speaking of the epidemic of erysipelas, as it prevailed in other parts of the country: "As, at Dayton, pregnant females advanced in gestation were exceedingly prone to premature labor, and the period of accouchement was looked to by the patient and physician with the deepest anxiety and solicitude. But one female within the range of my information escaped. She took the precaution to secure the services of a neighboring physician, without the infected district, and had a speedy 'getting up.' All, however, who were attended during labor by the practitioners under whose care most of the erysipelas came, died, in some instance, as early as twelve hours after delivery. Dr. Gish, of Salem, the point at which the disease prevailed in the northwest, thinks that puerperal peritonitis spread in a manner very like a contagious affection. Dr. Taylor, of Carrollton, resided six miles from the infected district and visited it daily, administering to the afflicted inhabitants. At the same time, he was engaged in a large obstetrical practice at home, yet not a single case of peritonitis occurred among his patients during the prevalence of the epidemic.

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* Hydrography, Topography, Geology, and Climate of Montgomery County. Epidemics from its Settlement up to 1854. Transactions of the American Medical Association, Vol. VII, 1854, p. 304.

One case, however, was developed and proved fatal in his neighborhood, and a mile farther removed from the infected region. The patient was attended by a midwife, upon whose wrist there was a small scratch, which subsequently became erysipelatous."

In 1844, there was an epidemic of erysipelas near Alexandersville, on the Miami river; in 1847, at Germantown. These epidemics are spoken of by Cary; and, in addition, another epidemic on the east side of the Miami river, in the northern part of the county, in the autumn of 1852. In Shelby county, erysipelas prevailed as an epidemic in May, 1851, and the winters of 1851 and 1852 (M. T. Carey, of Sidney, Ohio, quoted by H. G. Cary, of Dayton). In Highland county, Dr. Sams, of Hillsboro, states: "During the past winter (1852), erysipelas has prevailed to a considerable extent" (quoted by Carey). In Belmont county, Dr. West, of St. Clairsville, writes that, "During the years 1851 and 1852, this disease has occurred at various times as an epidemic" (quoted by Cary). A previous epidemic, in this same county, in 1833, is mentioned by Drake (*loc. cit.*)—also, epidemics of erysipelas occurring in Preble county, 1836; Meigs county, 1845–46; Brown county, 1848–49; Miami Valley, 1842–43. Others might be quoted; but let these suffice to show that these diseases are not uncommon in the State of Ohio.

Study of the Table.—Out of a total population of 2,665,260 souls (1870), 272 persons died from erysipelas. As regards sex, 140 of these were males and 132 females. Of these again, 245 were native born (242 whites, 3 colored), and 27 were foreigners. During the same time, 112 women died of puerperal fever. Of these, 91 were native born (90 whites and 1 colored), while 21 were foreign born. The foreign-born decedents from both diseases may be thus arranged:

NATIVITY.	ERYSIPELAS.	PUERPERAL FEVER.
Germany	11	17
Ireland	8	4
England and Wales	3	0
All others	5	0
Total	27	21

The season of greatest mortality from erysipelas was spring (88). The season of greatest mortality from puerperal fever was spring (40). The months of greatest mortality from erysipelas were March and April (*i. e.* 30 each). The month of greatest mortality from puerperal fever was March (20).

Reflections.—It will be noticed that both diseases were evidently most prevalent at the same season and the same month. Ohio has a foreign-born population of 372,493. The colored population, at the same period (1870), numbered 63,213; from whence it will be seen that many more deaths occurred among the whites, in proportion to population, than among the colored; also, that the native-born inhabitants suffered more from erysipelas than the foreign-born, while, at the same time, the foreign-born suffered more from puerperal fever, in proportion to population, than the native-born. This may seem to contradict a previous observation made regarding the prevalence of erysipelas and puerperal fever among our foreign-born population—the German and English especially. This apparent discrepancy in statement will be satisfactorily explained ere the close of our article. It will be noticed that both diseases appear to be more prevalent in Ohio than in New England and the Middle States, in proportion to population; while in Ohio the relative mortality from erysipelas is much greater, in proportion to population, than it is in the Southern States, at the same time there seems to be a great deal less of a tendency toward puerperal fever—that is, if we are to judge from these mortality tables; and I think such tables most assuredly afford a fair criterion enough to go by in pursuing the investigation of all such subjects as we are discussing. It may be claimed that the mortality tables for one "census year" do not afford sufficient evidence. In answer to such an objection, we refer to the "census tables" of 1850 and 1860, as being approximately correspondent, judging, hastily of course, from their total footings, and allowing for the natural increase of population which has occurred in the interval of obtaining the statistics of each particular census; for, with this increase in population, a like increase in the number of decedents will naturally occur. If any great difference exists in the relative mortality lists of the two diseases under discussion, for a period dating back twenty years (1850 to 1870), such difference indicated no special epidemic tendency at the periods the different censuses were taken. To be sure, in 1850 the mortality from erysipelas was more than it was in 1860; while, on the contrary, in 1850, puerperal fever was more than one hundred per cent. less than in 1860. I think the influx of foreign immigration, which set in so strong between 1850 and 1860, increased the death-rate from puerperal fever.

Table showing the Mortality from Erysipelas and Puerperal Fever in the different States and Territories. (CONTINUED.)

FOR THE YEAR 1870.

Arranged by T. C. Minor, M. D., Cincinnati, O.

SECTION FOURTH. — WESTERN STATES, NOT INCLUDING WESTERN TERRITORIES.	Total Population in Census Year 1870.	Deaths from Erysipelas in 1870.		Total Males and Females.	Deaths from Puerperal Fever in 1870.	Grand Total from both Diseases.	SPRING.						SUMMER.						AUTUMN.						WINTER.						Total Deaths from Erysipelas in Spring.	Summer.	Autumn.	Winter.	Season of greatest Mortality from Erysipelas.	Month of greatest Mortality from Erysipelas.	Total Deaths from Puerperal Fever in Spring.	Summer.	Autumn.	Winter.	Season of greatest Mortality from Puerperal Fever.	Month of greatest Mortality from Puerperal Fever.	REMARKS.
							March.		April.		May.		June.		July.		August.		Sept.		Oct.		Nov.		Dec.		Jan.		Feb.														
		M.	F.				Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.	Erysipelas.	Puerperal Fever.													
OHIO	2,665,260	140	132	272	112	381	30	20	30	5	28	15	17	11	19	1	14	5	25	14	23	5	28	11	19	3	21	12	18	10	88	50	76	58	Spring.	Mch. & Apr.	40	17	30	25	Spring.	March.	In Kentucky, one death from puerperal fever, month unknown, which in order to tally with the balance of the table, was placed to the credit of April. (12+1=13).
KENTUCKY	1,321,011	46	47	93	83	176	11	8	7	13	9	10	2	1	2	5	13	4	8	10	11	9	6	2	7	2	5	9	12	10	27	17	25	24	Spring.	August.	31	10	21	21	Spring.	April.	
TENNESSEE	1,258,520	53	32	85	82	167	9	12	4	6	8	13	6	3	6	5	10	2	3	7	8	4	7	3	8	8	7	12	9	7	21	22	18	24	Winter.	August.	31	10	14	27	Spring.	May.	
WEST VIRGINIA	442,014	18	19	37	13	50	2	2	3	0	4	1	5	1	4	0	2	1	4	0	4	1	0	2	6	0	1	1	2	4	9	11	8	9	Summer.	December.	3	2	3	5	Winter.	February.	
MICHIGAN	1,184,059	58	48	106	36	142	15	3	10	3	8	4	11	4	4	2	6	3	7	1	7	3	7	3	18	2	2	5	11	3	33	21	21	31	Spring.	December.	10	9	7	10	Spr.&Wint.	January.	
WISCONSIN	1,054,670	20	27	47	31	78	5	3	7	4	3	2	5	0	2	5	4	0	1	2	2	1	2	4	2	5	4	2	10	3	15	11	5	16	Winter.	February.	9	5	7	10	Winter.	Dec. & July.	
INDIANA	1,680,637	88	95	183	87	270	22	16	13	8	16	9	7	3	11	2	17	3	15	7	12	7	16	6	13	8	17	7	24	11	51	35	43	54	Winter.	February.	33	8	20	26	Spring.	March.	In Illinois, one death from puerperal fever, month unknown, which in order to tally with the balance of the table, was credited to the month of March. (25+1=26).
ILLINOIS	2,539,891	139	125	264	149	413	31	25	31	17	22	14	11	6	16	5	13	4	20	4	24	14	25	13	25	12	26	12	20	22	84	40	69	71	Spring.	Mch. & Apr.	57	15	31	46	Spring	March.	
MISSOURI	1,721,295	99	89	188	161	349	23	14	21	16	21	14	19	6	12	11	7	19	23	17	15	10	8	11	15	8	12	16	12	19	65	38	46	39	Spring.	Mch. & Sep.	44	36	38	43	Spring.	Aug. & Feb.	
ARKANSAS	484,471	26	25	51	56	107	5	6	3	5	5	4	2	1	5	6	3	1	9	7	8	4	0	3	4	6	3	6	4	7	13	10	17	11	Autumn.	September.	15	8	14	19	Winter.	Sept. & Feb.	
KANSAS	364,399	23	23	46	37	83	6	4	4	6	5	5	5	0	0	0	1	3	3	5	9	0	2	2	3	3	3	5	5	4	15	6	14	11	Spring.	October.	15	3	7	12	Spring.	April.	
MINNESOTA	439,706	9	5	14	13	27	1	0	2	2	0	1	2	0	1	1	2	2	1	2	0	1	2	1	1	1	1	1	1	1	3	5	3	3	Summer.	....	3	3	4	3	Autumn.	....	
IOWA	1,191,020	43	42	85	42	127	7	7	4	5	5	2	6	5	5	1	11	0	11	4	3	2	5	5	6	3	12	3	10	5	16	22	19	28	Winter.	January.	14	6	11	11	Spring.	March.	
NEBRASKA	122,993	2	3	5	4	9	0	0	1	2	0	1	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	1	0	1	1	1	2	Winter.	....	3	0	1	0	Spring.	April.	
NEVADA	42,491	1	1	2	2	4	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	1	....	....	1	0	0	1	....	....	
OREGON	90,923	1	4	5	2	7	0	0	0	0	3	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	3	1	0	0	Spring.	May.	0	1	0	1	....	....	
CALIFORNIA	560,247	24	13	37	13	50	6	1	4	1	2	0	1	1	0	1	3	3	2	1	3	0	7	0	3	1	4	4	2	0	12	4	12	9	Spr. & Aut.	November.	2	5	1	5	Sum.&Win.	January.	
TOTAL		790	730	1520	923	2443	173	122	144	93	139	95	99	43	90	45	106	50	133	81	130	62	115	66	131	62	118	97	142	106	456	295	377	391	Spring.	March.	311	138	209	265	Spring.	February.	

The following statement shows on what grounds we base ourselves, when we assert that the tables correspond near enough for the different census years to enable one to make at least a rough calculation in regard to the subject under discussion:

YEAR.	TOTAL POPULATION.	ERYSIPELAS.	PUERPERAL FEVER.
1850	23,191,876	2,786	520
1860	31,443,321	2,746	1,202
1870	38,558,371	3,162	1,828

It is possible that the erysipelas epidemic of 1848–49 may have run up the death-rate from that disease in 1850, owing to the lingering tendency to the disease after the subsidence of its first violent outbreak.

We will not discuss this last point further, but will now turn to the study of the tables relative to Kentucky.

KENTUCKY.—Lying between latitude 36° 30′ and 39° north, and extending from 82° to 89° longitude west of Greenwich, is the State of Kentucky. Looking over a hypsometric sketch of the state, we notice that the far western portion of it varies from 400 to 800 feet above the sea-level. At the north the land becomes higher, running from 800 feet up to 2,000 feet. In eastern and southeastern Kentucky the land becomes mountainous, near the Virginia and Tennessee state-lines.

At Louisville, in northern Kentucky (latitude 38°, longitude 85° 25′, altitude 600 feet above the sea-level), the mean monthly temperature, according to Blodgett, reads as follows: January, 35.8°; February, 36.7°; March, 45.3°; April, 57.4°; May, 63.6°; June, 71.5°; July, 74.6°; August, 73.3°; September, 67.4°; October, 52.5°; November, 44.1°; December, 36.4°—thus giving a temperature of 55.4° in spring; summer, 73.1°; autumn, 54.7°; winter, 36.3°; or a mean annual temperature of 54.9°.

At Springdale, near Louisville, the quarterly fall of rain and melted snow is as follows:

SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
12.10 inches.	14.80 inches.	9.00 inches.	12.20 inches.	48.10 inches.

Epidemic erysipelas has prevailed in Kentucky at various times without doubt. Drake speaks of it as having broken out in the Louisville Hospital in 1843–44.

[TO BE CONTINUED.]

Medical Societies.

CINCINNATI ACADEMY OF MEDICINE.

M. B. WRIGHT, M. D., PRES'T. G. B. ORR, M. D., SEC'Y.

REPORT OF CASES.

Dr. Mussey reported the following interesting case of an infant child, born on the 17th day of March: Twenty four hours after birth, it was ascertained that the child had passed neither urine nor feces. The doctor passed the catheter but found the bladder empty, no fluid having been secreted. Visited the case the next day and found that there had been a spontaneous evacuation of urine, but as yet nothing from the bowels. He now explored the rectum and found it was imperforate. He determined to pass the constriction, if possible; and, with this view, passed his finger slowly forward, and succeeded in dilating to the extent of some two inches and then desisted; but, notwithstanding this, there was no escape of *meconium.* He did not, nor did Dr. Bettman (with whom he was in consultation), think they were warranted in using any more force in order to get beyond the stricture. The child remained in this condition until the 26th of March, and died. On post-mortem examination, it was found that they had very nearly gotten through the constriction, and if they had used more force they would probably have succeeded in relieving the difficulty. Thought he had gone as far in this case as he was warranted in doing, and said that in those cases where there was operative interference a very small per cent. recovered.

Dr. Holdt said he had had a case where, upon exploration, it was found that the rectum terminated in a *cul-de-sac*, the same as in this case, but that the upper end of the bowels passed into the bladder, and *feces* were passed in the urine.

Dr. M. B. Wright said, that in all those cases, where the occlusion was at the anus or just within, that they could generally be treated successfully, but if the occlusion was an inch or an inch and a half above the *anus*, that they generally terminated fatally; that Dr. Blackman, just prior to his last and fatal illness, had operated for the relief of a constriction that was situated an inch and a half above the anus. They passed the first point of constriction, and, as they thought, got entirely beyond the stricture (as *meconium* was passed); but, notwithstanding the operation was successful, the patient steadily declined, and died in three months.

Dr. McKenzie reported the following very decidedly interesting case, occurring in the practice of Dr. Giltenan: B. C., a man forty years of age, consulted Dr. Giltenan for an affection of the bowels, complaining of great and continued pain in the region of the ascending colon. The doctor thought it might be impacted feces, and ordered a cathartic; but this did not relieve the patient. The doctor now requested a consultation with Dr. Murphy. The patient was now examined by Drs. Murphy, McKenzie, and N. P. Dandridge, who gave it as their opinion that the man had malignant disease of the intestines. Dr. Giltenan relieved the patient very greatly by the administration of the bimeconate of morphia. The patient steadily grew worse day after day; and, finally, he became so much worse that Drs. T. Wood and J. A. Murphy were called in consultation. After examining and agreeing as to what was the matter, they gave it as their opinion that the case was hopeless, as peritonitis had set in. Dr. Whittaker was now called in, and recommended that, as the case was hopeless, they should introduce an "apirating trocar," which was according done, and getting about one or two drams of *pus*. They now desisted in the use of the apirator (which had been introduced in the left lumbar region), and ordered liq. calcis to be given. The patient sank rapidly, and died at half-past seven that evening, being eight days after the peritonitis had set in.

The following is the post-mortem result, as given by Dr. McKenzie: "B. C. Corbett—post-mortem examination thirteen and a half hours after death. Body somewhat emaciated; moderate cadaveric rigidity; abdomen very much distended and tympanitic. Upon making an incision into the abdominal cavity, a small amount of *pus* and purulent fluid escaped. The intestines and omentum were adherent, by soft, easily broken-down lymph, to the abdominal walls. The omentum was similarly connected to the intestines, and the different coils of the bowel to each other. Upon gently separating the intestines from the omentum and from each other, several small *depots* of sero-purulent fluid, containing from half an ounce to an ounce, were found. The liver was adherent, by its superior and anterior surface, to the anterior abdominal wall. It extended downward an inch below the point of the ensiform cartilage, an inch and a half below the cartilage in the parasternal line, an inch in the mammary line, and half an inch in the axillary line. Upon detaching the right lobe of the liver from the anterior abdominal wall and the diaphragm, which was easily effected, as the adhesions were very soft, a circumscribed collection of *pus* was discovered situated between the diaphragm above and the liver below, and limited by the adhesions of these two parts. It amounted to twelve ounces. Corresponding to the cavity occupied by this *pus*, there was a depression upon the upper surface of the right lobe, about four inches in diameter, which was lined by the serous membrane, somewhat thickened and opaque. Another purulent *depot* was discovered beneath the cœcum and ascending colon, containing upward of a pint of *pus*. When this was laid open, and pressure made upon the bowels, gas bubbled through this liquid. There was also a quantity of *pus*, amounting to four ounces, in the pelvis, on each side of the rectum and between it and the bladder. This was circumscribed above by the adhesions of the bowels. The walls of the cœcum and beginning of the ascending colon were in places very much thickened by a neoplastic growth. This involved all the coats, and was of a white color and very firm. The walls, at some points, had a thickness of an inch. The internal surface of the bowels corresponding to these growths was extensively ulcerated, and in one place had *sloughed* so that there was an opening upon the posterior wall communicating with the purulent collection situated behind the colon, sufficiently large to admit the tip of the index finger. The intestine affected was a good deal contorted; but there was no material diminution in its caliber at any point. The commencement of the jejunum was adherent to the transverse colon near the splenic plexus, and at the adherent parts there was a growth similar in all respects, except that it was less extensive to that previously described. Several smaller growths existed upon the walls of the smaller intestine in the vicinity. The interior of this part of the bowel also exhibited patches of ulceration, but these were comparatively superficial and of no great extent. The liver, with the exception of the depression upon its upper surface, was quite normal. The surfaces were smooth, the section even, and the color healthy. It was of normal size. Spleen and kidneys normal. Soft adhesions between the base of the right lung and the diaphragm; elsewhere the lung was free. No adhesions in the left pleura. The lungs and heart were healthy in every respect.

"*Microscopic Examination.*—A scraping from the tumors exhibited, under the microscope, numerous granular cells resembling *leucocytes.* No nuclei could be seen. There were also a few fusiform and irregularly-shaped cells, and some fibers. A microscopic section exhibited, in some places, an alveolar a rrangement; but in others the cells and fibers seemed to be confusedly intermingled."

Dr. Murphy reported the case of a man who was *struck* in the right lumbar region. Violent pains followed; and the pulse was decidedly accelerated, running up to 160, and on taking the temperature found it to be 105°. There was very marked tenderness over the region of the cœcum. Prescribed bimeconate of morphia. On visit next morning found patient greatly relieved; pulse 130, but temperature up to 107°. He ordered an injection of warm water and warm fomentations to the abdomen. Next day the patient had a profuse sweat, and pulse fell at once; now ordered castor-oil emulsion; it acted well. That evening the patient was so much better that he regarded him as convalescent. The patient said to him, "Doctor, I am all right." Pulse 74. Diet—milk-toast and beef-tea. That night, as he was about to go to sleep, he was suddenly seized with intense pain. It extended all over the abdomen. On visiting him, he found him in the greatest agony, with decided peritonitis, and pulse and temperature away up again. Gave large doses of morphia, but he died next day at one o'clock. The patient, during his sickness, had eaten nothing but plain food. Some persons might think that the patient had peritonitis from the time of the reception of the blow, but he hardly thought so, as there were neither subjective nor objective symptoms to warrant such a belief. Post-mortem revealed acute peritonitis, and the appendix vermiformis was found stuffed as full as a sausage with feces.

Dr. Carson reported the case of a servant girl, who was under his care at the hospital, age nineteen years. She complained of pain in the abdomen, and following generally the course of the large intestine. It was thought that there was some enlargement in the region of the uterus. An important point was, that she had been amenorrhal for five or six months. He had her placed under the influence of chloroform, and decided to explore her rectum to see what he could find out. After oiling his hand, he introduced it and began search for the tumor, but it was not to be found. He found no difficulty in examining the uterus and also the ovaries, which were normal. He readily recognized the bifurcation of the aorta; and, having gone thus far, he determined to explore as far as he could. Continuing, he had no difficulty in finding the left kidney, and he thought he felt the margin of the left lobe of the liver. He thought, in diagnosis, you might reach the pyloric orifice of the stomach. He was anxious next day to see the condition of the patient. Found pain had all returned, and temperature 101°. He was interested to know whether there would be incontinence of feces. For one day there was, but after that she evacuated naturally. He mentioned a case where an examination was made of the uterus in search of calculi. No calculi found. There was incontinence for three days after.

Laughter as a Medicine.—A short time since two individuals were lying in one room, very sick—one with brain fever, and the other with an aggravated case of the mumps. They were so low that watchers were needed every night, and it was thought doubtful if the one sick of fever could recover. A gentleman was engaged to watch over night, his duty being to wake the nurse whenever it became necessary to administer medicine. In the course of the night both watcher and nurse fell asleep. The man with the mumps lay watching the clock, and saw that it was time to give the fever patient his potion. He was unable to speak aloud, or to move any portion of his body except his arms; but seizing a pillow, he managed to strike the watcher in the face with it. Thus suddenly awakened, the watcher sprang from his seat, falling to the floor, and awakened both the nurse and the fever-patient. The incident struck the sick men as very ludicrous, and they laughed heartily at it for some fifteen or twenty minutes. When the doctor came in the morning he found his patients vastly improved, and said he never knew so sudden a turn for the better. Now both are up and well. Who says laughter is not the best of medicines? And this reminds the writer of another case. A gentleman was suffering from an ulceration in the throat, which at length became so swollen that his life was despaired of. His household came to his bedside to bid him farewell. Each individual shook hands with the dying man, and then went away weeping. Last of all came a pet ape, and, shaking the man's hand, went away also with its hands over its eyes. It was so ludicrous a sight that the patient was forced to laugh, and laughed so heartily that the ulcer broke and his life was saved.—*Sanitarian.*

Hospital Reports.

CASES OF FRACTURE OF THE BASE OF THE SKULL, TAKEN FROM THE RECORDS OF THE CINCINNATI HOSPITAL.

Reported by PHILIP ZENNER, Resident Physician.

A number of these cases have been brought under observation at the hospital during the past year, and it was thought they might be of interest being thus grouped together. Some of them present points of peculiar interest, as will appear in their histories. One of the number, in which the symptoms pointed to fracture of the base, recovered, so that a verification of the diagnosis was impossible; but that termination, taken with the history of the case, makes it of special interest.

SERVICE OF DR. B. F. MILLER.

George H., æt. 25; laborer; admitted to hospital April 14, 1873.

Was brought to the hospital in a comatose condition at 7 P. M. Said to have fallen from an ice-wagon in an epileptic fit; to have walked a hundred yards or so after the fall, and to have answered some questions before going into a comatose condition. On his way to the ward in the hospital was attacked by a hemorrhage from the left ear.

On admission, pulse was 108; respirations 20 per minute. 8 P. M., pulse was 80. At 11 o'clock it was very irregular and intermittent; breathing stertorous; cheeks puffing out on expiration; some frothing from the mouth. The hemorrhage from the ear did not continue more than a couple of hours.

15th. Much the same condition persists this morning. During the night he would at times lie quietly, breathing rather heavily for several minutes at a time; but a greater part of the time he kept tossing the left arm and leg, throwing off the bed-clothes continually.

He passed his urine involuntarily. The right side of the body seems to be paralyzed, the lower extremity completely, and the upper partially so.

There is a marked rigidity of the muscles of both the arm and leg, so that they are moved with difficulty by another person.

There is a slight scalp wound over the left parietal eminence. After consultation, an exploratory incision was made, and though no fracture was detected, it was decided to be best to apply the trephine. This was done, and a disc of bone removed, when there was discovered an extravasation of blood under the dura-mater. A second disc was removed adjoining the first, and some clots of blood were removed. The pulse and respiration improved somewhat, and the convulsive movements of the left side were less violent than before. He seemed more conscious of pain, groaning from time to time; and if allowed to do so, would pull the cloths from his head.

Ordered ice-water applications; also, an injection of soapsuds and castor-oil.

At 5 o'clock the pulse was about 120, rather variable, but not decidedly intermittent; respirations 30. At 9:30 P. M. the pulse was 118–124; respirations 24–32, at times of rest or of action. Sometimes he breathed quite naturally for a time, but more generally he breathed heavily, with auxiliary muscles in full play, and puffing out of the cheeks on expiration. The hand being laid over the heart to note its action, he took hold of it with his left hand and removed it.

16th. At 8 A. M. the breathing was more quiet than yesterday; pulse 120; respirations 27.

About 12 M., when examining the brain through the opening made by the trephine, hemorrhage started from a small artery and was quite free for a time, but was checked by compression and the application of ice. Ten leeches were applied to the left temple and behind the left ear. The head continues very hot, notwithstanding the ice-water applications.

6:30 P. M. Pulse 145; respirations 45; temperature 104½°.

17th. Died at 6:30 A. M.

Post-mortem Examination.—There is suggilation of both lids of the left eye, and the left ear is filled with blood. At a point corresponding to the parietal eminence, there is a T-shaped incision of the scalp, corresponding to which is an opening in the calvaria, caused by the applications of two trephines of different sizes.

On removing the skull cap, a cut made by a knife is found in the dura-mater corresponding to the opening made in the skull by the trephine. Dura-mater is quite adherent over the convexity of the skull. About one inch below, and somewhat anterior to this opening, clotted blood is found between the bone and the dura-mater, and also beneath the dura-mater. There is a general effusion of blood beneath the dura-mater, dipping down into the sulci, occupying the entire convexity and extending somewhat over the base.

In the external and anterior part of the left middle lobe, there is an irregular depression about two inches in each of its dimensions, occupied by clotted blood. This corresponds to the blood effused upon both sides of the dura-mater mentioned above. A small quantity of blood found in ventricles. Cerebral substance everywhere normal.

After the removal of the brain, a fracture is apparent—the line of fracture running anterior to and into the petrous portion of the left temporal bone, extending through the middle fossa in the greater wing of the sphenoid; the fracture also extending into the parietal bone.

SERVICE OF DR. B. F. MILLER.

Barney M., æt. 29; laborer; admitted May 14, 1873.

The patient states that on the day previous to his admission he fell into a ditch three feet in depth, alighting upon his head. He has had a headache since then. This morning noticed ecchymosis of eyelids and bleeding from the nose. He vomited twice some dark, bloody-looking material.

He is a man of medium height, good muscular development, and well nourished. When admitted, temperature was 102¾°; pulse 72, moderately full; respirations 18, quite deep. Eyelids on both sides are very deeply ecchymosed and swollen. The nostrils are filled with dark coagulated blood, and there is a small quantity of fluid exuded, which has the appearance of brain substance. He is rational, but answers questions very shortly and in an indistinct manner. Occasionally tosses himself about, and is very restless. When brought to the hospital, feces had been evacuated in his drawers. There is a small flesh wound above left eye.

Ordered cathartic; leeches to both temporal regions, and cold applications to head.

15th, A. M. Pulse 54; temperature 100½°. P. M. Pulse 54. Less headache to-day.

16th, A. M. Pulse 53; temperature 100½°. P. M. Pulse 54; temperature 102°.

17th, A. M. Pulse 52; temperature 101°. P. M. Pulse 58; temperature 102°.

During the last three days the general and mental condition have continued about the same as on the first day.

18th. He moaned a good deal during the night. Complained of severe headache early this morning. At 8 A. M. find him tossing about continually in bed, and talking in an indistinct manner. He answers questions shortly, but so indistinctly as not to be understood. Screams occasionally. There are signs of recent bleeding from the nose. Left conjunctiva is very much swollen and of a deep-red color, a fold of it projecting forward above the edge of the lower lid; so very much swollen that lids can not be separated forcibly from one another. Pulse 78; respiration 34; temperature 106¾°.

Ordered ice bags to head.

2 P. M. Breathing slow and deep. Expiration very prolonged and accompanied by a constant moaning.

He is completely unconscious, and throws himself about in bed violently. Passed urine in bed. There was slight priapism for a short time. He clutches at the penis as though a source of irritation. Twelve ounces of urine were drawn off with a catheter. Pulse 78; temperature 106¾°.

6 P. M. Pulse 78; temperature 106¾°.

Died at 10:30 P. M.

Post-mortem Examination.—On removing the scalp, the muscles external to the skull were found to be generally discolored and moister than usual.

On removing calvarium a fracture was found running across both orbits, detaching completely the upper surface of the ethmoid bone, and splintering more or less both supra-orbital plates. On the right, the fracture extended upward as far as the suture between the frontal and parietal bones, downward through the malar process of the superior maxillary bone, also through the lachrymal and nasal bones. On the left, it extended through the internal part of the floor of the orbit, through the nasal and lachrymal bones, meeting the fracture of the opposite side beneath the bones of the nose.

Corresponding to the fracture of the supra-orbital plate on the right side, there was a destruction of brain tissue in the middle lobe from hemorrhage. At several points on the dura-mater there was evidence of hemorrhage. The brain substance was somewhat softer and moister than usual.

SERVICE OF DR. B. F. MILLER.

James K., æt. 56; laborer; admitted June 11, 3 P. M.

At 1 P. M. the tackle of a derrick, weighing about forty pounds, broke from its connections at a height of eighteen feet from the ground, and struck obliquely the side of patient's head.

When admitted he was entirely comatose. Pulse 52, full; respirations 10, deep and spasmodic; pupils dilated and insensible to light. There was hemorrhage from left ear. The left side of the head, particularly over the parietal bone, is quite swollen. Ordered cold applications.

5 P. M. Pulse 54, intermittent; temperature 100¼°; respirations, 7, very difficult. Vomited contents of stomach. He seems to be almost choking from accumulations in the mouth and throat. The arms are entirely motionless. The legs are rigid, sometimes move a little, and much of the time in constant tremor.

7 P. M. Pulse 84; respirations 13; temperature 102°.

8 P. M. Pulse 105; respirations 33; temperature 104¼°. Pupils are somewhat contracted.

9 P. M. Pulse 120; respirations 8; temperature 105°. Bleeding from ear continues.

Died at 10 P. M.

Post-mortem Examination.—Scalp unbroken, but contused on left side, and somewhat puffy from effusion of blood beneath.

The scalp on removal was very stiff, cartilage-like in feel, and very elastic. Underneath it, on left side, were clots of blood and some effused brain substance. A depressed fracture and various fissures running from it could be seen.

On removing the calvarium on left side of parietal bone, just beneath the eminence was found a penetrating depressed stellate fracture. Several small fragments were pressing in an oblique direction upon the membranes of the brain. Fissures ran from the seat of depression in every direction, which by their union isolated larger or smaller pieces of bone. One of these ran upward across parietal bone to the sagittal suture; another, forward across the parietal and two-thirds across frontal bone; another, downward through the middle fossa, extending along the anterior surface of the petrous portion of temporal bone, from base to apex; and from this last, another ran forward across squamous portion of temporal and greater wing of sphenoid, thence upward and backward to the seat of depression.

The fracture in the petrous portion of the temporal bone involved the eminence over the semicircular canals, and the probe could be passed from the external ear directly through this opening.

Clots were found between the dura-mater and the skull. Blood was effused into the cavity of the arachnoid beneath the seat of injury. The sulci on the convexity of the brain were filled with blood.

The membranes and brain substance were lacerated beneath the seat of the depression, as far as the base of the brain.

On section, the superficial surfaces of the thalami optici and corpora striata were found to be softer than normal.

SERVICE OF DR. C. S. MUSCROFT.

Alexander L., æt. 20; brakeman; admitted to the hospital May 2, 1873.

On the day before admission, while trying to couple two cars he was caught between them.

According to his brother's statement, he was caught between the two cars, by which the lower part of his chest was compressed; at the same time he was struck on the head by a piece of timber. The patient states that he was unconscious for a time, but does not know how long.

When admitted his mind was tolerably clear. He answers questions pretty well, though he occasionally wanders a little. There is bleeding from the nose, and he has vomited dark, grumous blood.

The pupil of the left eye is widely dilated, and does not respond to light; that of the right eye is also dilated, though less than the left, and responds slightly to light. Pulse 85, feeble; respirations 28; temperature 98¼°. He calls for water very frequently, but vomits very soon after drinking any.

The hair was cut short for the purpose of examination, and a depression was found on the left side, about three inches from the median line in the anterior portion of the parietal bone. The depressed surface seemed to be about one inch in diameter.

An incision was made to the bone, and a small depression was found in it, but there was no fissure to be found, and no further operative procedure was undertaken.

In the afternoon his pulse was 124; respirations 36; temperature 98½°. Still calling for water quite frequently.

3d. Is much better this morning. Vomited only once during the night. Pupils not so much dilated. Can see better than he did yesterday. Pulse 100; respirations 24; temperature 99¾°. Ordered corn-meal gruel during the day.

P. M. Complains of pain in the head, otherwise feels very well. Still calls for water. Pulse 64; respirations 20; temperature 101°. Ordered epsom salts ʒj. every three hours, until he has a stool.

4th, A. M. Pulse 60; respirations 20; temperature 100°. Had four passages from bowels last night. Still suffers with pain in the head. Appetite is returning; sits up in bed. The pupil of right eye is nearly normal. Left pupil still dilated, and there is some swelling and ptosis of the upper lid. Face somewhat swollen on the left side. P. M. Pulse 56; respirations 24; temperature 102°.

5th. Not thirsty this morning. Still has pain in the head. A. M. Pulse 85; respirations 20; temperature 101¾°. P. M. Pulse 62; respirations 24; temperature 102°.

6th. Rested very well during the night. The paralysis of left eye disappearing, but the pupil is still dilated. The face is less swollen. Pulse 62; respirations 19; temperature 100½°.

7th. Lies quietly. Still has pain in the head. Says he does not care to eat or drink. Pulse 48; respirations 17; temperature 99°.

8th. Is feeling very comfortable this morning. Pulse 51; respirations 16; temperature 99°.

9th. Pulse 47; respirations 18; temperature 99¾°.

12th. The left pupil is not so much dilated as it was. Patient rests well; tongue is clean; appetite is good; bowels moved once to-day. Pulse 54; temperature 100°.

16th. Pupil still dilated; sleeps well; secretions regular. Pulse 50; temperature 98¾°.

20th. The general condition is improved. Pupil dilated and fixed; tongue clean; appetite good. Pulse 70.

31st. Wishes to go away. Discharged well.

CASE OF ANEURISM OF THORACIC AORTA, CONCEALED IN THE LEFT LUNG—SERVICE OF DR. C. G. COMEGYS.

Reported by E. M. NELSON, Resident Physician.

December 3. E. T., colored, æt. 43; widow; cook. One year ago had an attack of inflammatory rheumatism; had a second attack about two months ago. About four weeks ago she noticed aching pain in both sides of chest, with cough and expectoration; has had aphonia for three weeks. No chill at beginning of attack.

Present condition: Woman of medium height; fairly nourished; appetite good; tongue pale and flabby; bowels costive; menses absent for two years. Complains of soreness and tightness of chest; very little expectoration; speaks in a whisper; skin cool and moist; pulse 114, fair.

Physical examination: Movement of left chest very limited; percussion gives almost complete dullness anteriorly, laterally, and posteriorly. Anteriorly, respiratory sound feeble and slightly tubular beneath clavicle. Posteriorly, on the left there is blowing expiration about the spine of the scapula; lower down, the sound is still tubular, but approaches more nearly to a normal respiration, but very feeble. No rales to be heard at any point. Right side anteriorly, respiratory murmur exaggerated, but otherwise normal; posteriorly, the same. No rales; heart's action strong; valves intact. No enlargement of the liver; some tenderness in the epigastrium. Ordered pill comp. cath. no. ij. Ordered syr. fer. iodid. ʒss ter die.

December 5. Less aphonia; can occasionally speak a word audibly; complains of irritation of throat and inability to expectorate. Ordered ℞ Ext. hyosciami, fl. ʒiss; vini ipecac, ℥j; ext. prun. virg. fl. ℥iij. ℥ij. M. Sig. ʒij. ter die.

December 10. Improving; appetite some better; cough less and easier; less pain in chest; temperature 99½° A. M.; 100½ P. M. daily.

December 20. Ordered to inhale steam twice, daily, for aphonia.

December 28. Appetite good; little pain; expectorates easily; aphonia only occasional.

January 3. Relapsing; constant pain in left side, anteriorly; much weaker; aphonia has returned; appetite much impaired; bronchial breathing very distinct over left chest, and appears to extend lower toward base of lung. Ordered emplast. belladonna 7x3, over sternum and right side, to relieve pain there.

January 7. Expectoration viscid and bloody; pain still continues in left chest. The belladonna had given temporary relief only. Ordered ℞ potass. iodid. ℥ss.; syr. senegæ ℥ij. M. Sig. ʒij ter die.

January 10. Expectorating some blood; very weak. Ordered spt. frumenti ℥ss, four times a day.

January 12. Still a good deal of blood in sputa. A good deal of pain between the shoulders. Ordered emplast. belladonna 2x4 to be placed between the shoulders.

January 20. Much more comfortable. For the first time in many days the expectoration is free from blood; aphonia is very marked.

January 23. Physical examination: Flat percussion all over left side anteriorly; heart-sounds are transmitted to the shoulder; bronchial breathing very distinct all over the left side. Posteriorily, percussion is flat over the scapula; some resonance below the angle of the scapula. Some normal vesicular murmur along the inner border of the scapula, at the lower angle. Laryngoscopy was attempted, but failed, owing to the irritability of the fauces; nevertheless, the epiglottis was seen, and it was not edematous, nor was the faucial membrane injected. Very slight fever at any time.

February 21. She has continued with no marked change until to-day, at times complaining of a good deal of pain in the left side of her chest; at other times feeling very comfortable. Last night she spit up two or three ounces of clear blood, but there seems to be no recurrence of the hemorrhage to-day. When seen last night the pulse beat 120–130. Tr. verat. virid. gtt. iij every three hours was then ordered. This morning the pulse was 104–112. Ordered to give Tr. verat. vird. gtt. ij every three hours.

February 23. About 1 o'clock, as she was raising herself up to take her dinner, she was seized with a spasm, which lasted but a few seconds. She then screamed aloud and struggled violently for a few minutes; then became quiet, and as the resident physician reached her bedside, was just breathing her last.

Autopsy, twenty hours after death.—On opening the abdominal cavity, the diaphragm was found to be pushed down upon the left side, presenting a convexity instead of a concavity. The spleen and left kidney were somewhat displaced by this depression of the diaphragm. The left margin of the liver was doubled back upon itself. By pressing upon the diaphragm, fluctuation could be observed in the intercostal spaces of both sides of the thorax. Upon opening the thoracic cavity, the apex of the heart was found some distance to the right of the median line. The left pleural cavity contained sixty-one ounces of bloody serum and coagulated blood.

The heart, lungs, and aorta, as far as the diaphragm, were all removed together.

On the posterior surface of the lower lobe of the left lung, there was a slit in the pleura, about one-half inch long, as if it had been torn. The whole left lung was much firmer than normal.

On opening the aorta, a circular opening, about three-fourths of an inch in diameter, was found upon the convexity of the descending portion of the arch. This opening communicated with an aneurismal sac, which was imbedded in the left lung. The cavity of the sac was filled with a tough laminated clot. A probe was passed without difficulty through the slit in the pleural surface mentioned above, into the sac, and through the opening into the aorta. On cutting through the lung into the sac, the lung tissue was found to be infiltrated with extravasated blood to a very considerable extent. The tissue of the lung immediately around the sac felt as if completely solidified. It was impossible to trace a distinct sac about the entire extent of the cavity, and the appearance indicated that the pulmonary tissue formed a part of the wall of the aneurism. The pleura was healthy except at point of rupture.

On opening the trachea, the left bronchus was found to open directly into the cavity of the aneurism. Its walls were entirely destroyed in places, nothing being left but the jagged ends of the cartilaginous rings. The destruction of the bronchus extended to within one and a half inches of the bifurcation. Immediately below the bifurcation were two large indurated glands, of about the size of pigeons' eggs.

The left carotid was found to be given off from the innominati. The heart was normal in size. Anterior curtain of mitral valve was slightly thickened. There was an abnormal quantity of subpericardial fat.

There was a considerable amount of atheromatous degeneration of the aorta throughout its whole extent.

The right lung was crepitant throughout, considerably congested, showing an increased amount of pigment, and some enlargement of the bronchial glands.

The larynx was examined, but nothing abnormal found.

Remarks.—The diagnosis assumed in this case was fibroid phthisis, and this opinion was founded upon a careful study of the rational and physical signs. It is very easy to see, in the light of the autopsy, how such a conclusion was strongly supported. The physical signs yielded by the condensed lung tissue from the aneurism, are the same as exist in the fibroid degeneration. The quantity of blood raised, it is true, was unusual in such cases—nevertheless, spitting of blood is an ordinary symptom in fibrosis. Then, the general absence of hectic fever in the case, and of the characteristic sputa and perspiration helped to confirm our notion, that it was not a case of tubercular or caseous phthisis. The aphonia seems to indicate that the recurrent laryngeal was implicated; but no contraction of the iris existed to show that the sympathetic was involved.

There were no physical signs of aneurism that could have been detected; for it was a sacculated form embedded in the center of the lung tissue, and the aortic blood-stream not passing through the sac, did not agitate the fluid in the cavity so as to make a murmur, or fremitus. Pulsative action was condensed by surrounding lung tissue, and the tumor did not reach the chest parieties sufficiently to produce movement.

This is the first case of this localization of aneurism I have met with. If at any future time I shall have a patient with similar symptoms, I shall, in view of the peculiar distress in the chest which my patient had, the character of the hæmoptysis, and the irregular aphonia, consider more seriously, than I did here, an aortic aneurism embedded in lung tissue. It is wonderful, from the destructive changes shown, that she had not bled to death much earlier; as it was, the death was due to the sudden bursting of the sac: the separation of the serum so completely from the clot was *post mortem*. C.

GONORRHŒA, GLEET, ETC.—We have recently known a number of very obstinate cases of gleet relieved by the introduction of a catheter, smeared with mild zinc ointment, once or twice per day. Many recent cases of gonorrhœa are much relieved by the same means, with the addition of a little carbolic acid, sulphate of zinc, or nitrate of silver. An injection containing about two grains of sulphate of zinc to the ounce of water, and the whole made thick as cream with finely-powdered golden-seal (Hydrastis Canadensis), is deemed worth from $500 to $1,000 by those who have been very speedily cured by it. At least, such is their verbal estimate of its value. It is thrown into the urethra, and allowed to remain as long as it will.—*Medical Times and Gazette.*

Selections.

A Case of Chorea—A New Method of Treatment Suggested.—By RANSOM DEXTER, A.M., M.D., Chicago.—In the early part of January, of the past winter, my attention was called to the case of Miss D., aged thirteen, who had been suffering from impaired health for the previous six or eight weeks. This was attributed to hard study at school, and an effort was made to avert any further serious consequences from that cause, but too late, as the result proved; in less than forty-eight hours after her withdrawal from school, she presented decided symptoms of chorea.

On the 14th of January the disease had fairly made its invasion; and the first prescriptions I thought best suited for the existing conditions were as follows: Extract of valerian and cimicifuga, twice a day; and the elixir of pepsin, bismuth, and strychnia, before each meal; and bromide of potassium and cannabis indica at bed-time.

In a few days I noticed some malarial periodicity, but no cardiac or rheumatic troubles, though my little patient was growing worse rapidly. I now prescribed Fowler's solution of arsenic; but the symptoms appeared obstinate. I then solicited the advice of one of our most competent physicians, who approved of the adjustment of the agents to the peculiarities of the case; but the course of treatment to be instituted for the periodicity was a complicated question. After canvassing the *pros* and *cons*, we decided to try, cautiously of course, small doses of quinine and iron.

I accordingly did as we thought best; but as soon as the slightest effect of quinine was observable, the following symptoms ensued: Hemiplegia on the left side; dilatation of the pupils of both eyes; some choreic movements during sleep, increasing so much when awake that the patient had to be held down on the bed or lounge; she could not sit up, but in attempting to do so, would be jerked down, instantly and violently, by the muscular contraction.

But four grains of the quinine had been given when the peculiar symptoms of this complaint became general, and I despaired of saving my patient, apprehending a general failure and wearing out of the vital powers.

Only ten days had now elapsed, and during that time I had reviewed the writings of several of the most able modern writers on the subject, and was unable to see wherein I could improve upon my first system of treatment. This stage of the disease, with its outlook, was unpromising.

Not being satisfied with either the pathology or the therapeutics of the disease in question, I began to review the facts and phenomena, and the following queries suggested themselves to my mind:

1. Why are choreic patients quiet, during sleep?

2. Why do noise and excitement aggravate the condition?

3. Why are the symptoms aggravated by the entrance of neighbors or strangers?

4. Why was the condition so unfavorably affected when the piano was played?

5. Why did so small an amount of quinine have such an injurious effect?

6. Finally, what are the unquestionable physiological interpretations of the phenomena under all these conditions and circumstances?

To me, the whole problem seemed solved in an instant, as follows:

1. That all the sensorial ganglia, or the centers for the nerves of the separate senses, were more or less affected; and that the sensori-motor centers were the special seat of the disease.

2. That the pathological condition could not be other than an asthenic irritation of the sensori-motor organs.

3. That these organs, and especially the sensori-motor guiding ones, must have physiological and therapeutical rest, with the additional treatment by such medicinal agents as will also contribute to that end.

4. If the *physiological* and *therapeutical* rest be the *sine qua non* of treatment, then what is to be done?

At first, I essayed to carry out these ideas by blindfolding my patient, filling the ears with cotton, excluding all company, and keeping her in one room, where everything was familiar. The blindfolding, and cotton in her ears, she could not tolerate, from her sensitive condition. I then ordered the blinds closed, kept her in a middle room of the house, and enjoined the most strict quietude in every particular, even to lying as perfectly still as possible upon a lounge, that the nerves of touch might not be wrought upon; also in every other particular pertaining to the five senses, and muscular motions.

5. Continued the extract of valerian, cannabis indica, and bromide of potassium, with an occasional cathartic to act as a revulsive. Her attendant was her mother, most of the time, but relieved by the patient's father. But little was said in the room; the patient could not speak; and the parents spoke as little as possible, the room being kept in a twilight condition.

In eight hours after this treatment was instituted, we were impressed that a noticeable improvement had ensued; but, within twenty-four hours thereafter, the improvement was a decided one. From that time the improvement continued rapidly; and in six days all choreic movements had subsided.

I do not believe the patient's general health suffered from want of light, but, on the contrary, was much better off without it, as long as she suffered from chorea.

It would be difficult to make me believe that this rapid recovery was a mere coincidence; therefore, I feel at liberty to express my views, and ask the profession to try them, or be governed by the principle that the *sensorial centers in chorea need physiological and therapeutical rest.—Chicago Journal.*

Nervous Sore Throat.—The following article is introduced into the journal, less on account of its intrinsic merit than as a means of calling attention to a form of disease not usually considered as neurotic in character.

It is an abstract of an article contained in the *Deutsch Klinik*, No. 6, 1874. It had been our intention to have prepared an article on a kindred topic, in which various cases we have observed would have been detailed; but we will content ourselves by referring to one of them briefly.

Mr. D., of Howarden, Wales, had, ten years before I saw him, what was called, and from the history of the case may have been, severe inflammation of the spinal cord and its membranes, in the upper and middle dorsal regions. He was confined to his bed and room for over nine months, and made a slow and painful recovery; but since then he has had, at times, more or less pain in the back in the region described, and pains and neuralgic shoots along the nerves which terminate in that part of the cord, and has been greatly inclined to headache, and to changes in the vascularity of the head. He can hardly remember when it began, but there has been, for several years, a tendency to painful disorder in the throat.

The mucous membrane lining it is reddened, but not apparently thickened or abraded. There is a little induration of submucous structures, but nothing marked in this respect. Tonsils slightly enlarged. But there is often, for weeks at a time, a scalded or burnt feeling, with a sense of stiffness and disagreeable soreness in the whole throat. He also feels, at such times, as if there is something clinging to the mucous membrane, which he tries to remove, but can not. There is a throbbing sensation in the throat, that seems, at least often, to be synchronous with the cardiac impulse. The sense of soreness is aggravated by movements of the throat, as in swallowing or much speaking. There is dryness rather than increased secretion from the mucous membrane of the affected part.

Externally, there is often flushing of the face and neck, especially on the left side, on which the throat disorder is most manifest; and also an unnatural elevation of temperature at times. The eyes are prominent, more or less injected, somewhat dry, and a little sensitive to light; pupils slightly contracted; heart a little irritable in its action, with occasional palpitation; tongue clean, with a distinct but very thin white, velvety fur; digestive system in fair order; general health moderately good; bowels slightly constipated; sleeps moderately well.

But it is not our intention to describe fully this case. The point of immediate interest was the throat disorder, which resisted, at first, all plans of treatment adopted, whether local or general. Upon careful consideration, we had but little doubt the disorder in the throat was neurotic in origin, and that the several local symptoms, at least in part, could only be explained by a reference to the nervous centers, fron whence the nerves proceed that innervate the mucous membrane of the throat and parts beneath it.

It seemed highly probable, as the spinal vaso-motor center for the head is situated in the upper dorsal region of the cord, and inasmuch as that was the seat of the former inflamation of the cord, that there still remained some traces of disease, which so acted on the vaso-motor nerves proceeding from that part of the cord in question, as to give rise to the vascular disturbance so often seen about the head and throat in this patient. Whether the phenomena in this case did not point, moreover, to some more central disturbance higher up in the cerebro-spinal axis, even so high as the origin of the glosso-pharyngeal nerve, we will not now stop to inquire. But, acting on the view of the pathology of the case just expressed, we employed, occasionally, the continuous current (descending) of moderate strength, one electrode being placed on the back of the neck, or sometimes held in the hand, while the other was either placed over the dorsal region of the spine, or at the feet. Beside this, he was placed on a preparation of ergot and one of the bromides, with suitable medical and hygienic regulation as to his general health, and occasional local applications to the throat of nitrate of silver solution; and on this course the patient slowly improved.

Before he had recovered he removed to another part of the country, where his improvement continues. It will be seen that this case of sore throat differs from those referred to below, in regard to its condition or cause. Dr. Klemm attributes the sore throat in his cases to nervous disorder, produced by unhealthy mental or emotional states, in its turn, doubtless, arising from some cerebral disorder. In the case we have cited, the sore throat was presumed to be, at least in part, the outgrowth of vaso-motor disorder, arising out of long standing disease of the spinal cord; but both kinds of cases agree in having a supposed nervous origin. But we now introduce the promised abstract of the article of Dr. Klemm, in No. 6 of the *Deutsch Klinik*.—ED.

"A very large number of sufferers from so-called sore throat, complain of a constant painful sensation, without showing any other than the most trifling morbid alterations in the region affected. Such patients, who can not on other considerations be accounted as nervous cases, often occupy, more than any others, the time of the physician, and frequently have to be accounted as absolutely incurable.

"In such cases, even the closest examination affords no satisfactory explanation why the abnormal sensation should appear in the perfectly normal mucous membrane. The search for an anatomical cause has, in this matter, afforded us no satisfactory explanation; on the contrary, it frequently occurs that altogether unimportant and secondary alterations are mistaken for the *corpus delicti*, and, in consequence, a false system of treatment is decided upon, and the stronger caustic agents are, especially, misemployed. Quite often, very trifling alterations of the mucous membrane of the throat are taken to be the source of the numerous and often very different sensations experienced in the throat and larynx (in drinking, speaking, or in rest, etc.): such as the well known small, isolated, hypertrophic warts or band-like excrescences, or even the almost constant thickening of the lining membrane, with increased secretion of mucus in old persons, which, if it occurs together with any nervous complaint, is usually believed to be the cause: so that the whole is considered as a chronic throat-catarrh. In very many cases these alterations are present without producing any uncomfortable symptoms of pricking, pressure, constriction, choking, etc., and they are very often wanting when these troubles are present in a very pronounced and rebellious form.

"In many such cases of sore throat we find, to be sure, some swelling of the mucous membrane, the submucous cellular tissue, and the glands, especially in the throat; and in these cases the pain is relieved by caustic applications. But the author excepts these cases of true pharyngitis, and confines himself more exclusively to those in which the pharyngitis is either extremely slight or altogether lacking. In like manner, many cases of pulmonary disease, with normal mucous membrane, would be erroneously diagnosed as chronic pharyngitis, and treated with caustics, without profit, if we take into account only the pain in the throat and the feeling of pressure, etc.

"The results of treatment show, moreover, that the caustics have either a very slight effect, or none at all; and that only one thing proves beneficial, that is, change of air and the milk-cure, with the employment of some mineral waters, which are here often of great service.

"The essential symptom of these various forms of hyperæsthesia of the pharynx is the difficulty experienced in swallowing or in speech. Swallowing is always accompanied with an abnormal sensation; the patient complains of pressure, pricking, or a sensation of constriction, or the feeling of some foreign body, sometimes as if a hair was lodged in the throat. The painful sensation is either felt on both sides, or it may be confined to a single point, accurately designated by the sufferer. Sometimes it is constantly present; but it is generally periodically milder, often lacking entirely, and then again severe. In the evening it is always more severe than in the forenoon, and, in many cases, returns daily, in the afternoon. Emotions of all kinds have a bad influence, especially upon those who have lost relatives from consumption, or who are particularly fearful and nervous. Many of the patients complain of a dryness of the throat, without any such appearance to the mucous membrane, an especially troublesome and constant symptom; or they affirm in the most confident manner, that there must be a foreign body lodged there, causing them to attempt to swallow, or hawk, and cough, while really no collection of thick mucous, as in actual pharyngitis, is really present. Speech is affected in sympathy; it is not hoarse, but almost inaudible, and the patients complain that it soon fatigues them and causes pain. Finally, we have the *globus hystericus;* but this is met with much more rarely than the other symptoms. Sometimes, again, the painful sensation extends to the ear, and hearing is affected.

"The individuals who are especially liable to this nervous affection are by no means always of a nervous or hypochondriacal disposition: it attacks frequently the female sex, and not merely hysterical or irritable women, and those in the higher walks of life, but among others, strong and healthy women, and particularly those of the lower classes, who have nothing but their throats to complain of. This hyperæsthesia is rather common among men; and according to the author's observation, it affects the cultured more than the working class, and is not at all rare among those who are in the custom of public speaking or singing, or who have often suffered from catarrh. In both sexes, he found the fear of consumption, which had caused the death of a cousin, or a brother, etc., to be an indubitable cause of the affection; and frequently a recent loss of this kind throws the patient into great agitation and establishes the disease.

"Very often the psychic origin may be detected when there also exists an ordinary nasal or bronchial catarrh, without any participation of the membranes of the throat; and in this case, also, fear is the principal cause of the disease. A third cause is yet to be mentioned—the persistent excitability, often remaining after an acute pharyngitis or laryngitis, similar to the lasting irritability of the tonsils, without hypertrophy, after an acute amygdalitis. This is the case not only after acute but also after subacute inflamations of these parts, which are readily re-excited, and which leave the throat for a period in quite an irritable condition.

Finally, we may enumerate among its exciting causes, external irritation from wind, dust, indulgence in stimulants (even coffee), which very easily produce hyperæsthesia in sensitive subjects, without any corresponding alteration in the mucous membrane. It is sometimes very difficult to decide, in cases where there are slight alterations, whether the actual very insignificant and habitual abnormal appearances are really the cause of the trouble or not; and only by prolonged observation can a correct opinion be given. Whether the affection is ever hereditary is doubtful; but the patients will sometimes so assert.

"The participation of the vocal organs is specially noticeable in this form of hyperæsthesia; the voice is either inaudible or harsh, although nothing abnormal can be detected in the larynx; the patients unintentionally aggravate the symptoms, either because fear and imagination co-operate with the disease, or because the activity of the motor fibres is diminished. The inconstancy of the phenomena, the rapid onset of the disease after emotional disturbances, and its quick departure, prove that its cause is not a catarrhal trouble, but a purely nervous affection. Another peculiarity is in the fact that such invalids feel free from their difficulty in the open air, while they suffer in-doors; and correspondingly, we find this purely nervous hyperæsthesia much more rarely among dwellers in the country than among towns-people, although they are often enough subjects of chronic pharyngitis, and are made worse by raw air or draughts.

"The cure of this affection is one of the most difficult tasks of the physician; the patients often engage his attention for years without obtaining relief; and even if a cure seems to be obtained, they again readily relapse. Here, also, appears the difference between the nervous and the catarrhal form; the latter is altogether more yielding to local remedies, while in the other case they very often are of no use, or are merely of transient effect, and their employment seems to be very little indicated, as they only afford a momentary alleviation. Frequently they are even injurious, since by their use the hyperæsthesia is increased.

"The inexperienced physician is readily inclined to consider the disease altogether imaginary; but this is not the fact; it really exists, and is much more important than many others with visible alterations for a cause, and which are suitable for treatment with nitrate of silver in substance.

"The treatment is based on very slight foundations. If material alterations of the mucous membrane present themselves, it is always justifiable to apply local applications; and if it is desired to remove red fleshy excrescences, the caustics in substance are preferable to weak solutions. But if these are lacking, the action of weak solutions (0.3 to 15 or 30 water) is indicated; or we may pencil the parts with chloroform and glycerine, which is sometimes of service. If there is no chronic catarrh, we may try electricity, which sometimes causes a rapid improvement in rebellious cases; but it is needful that one electrode, armed with a sponge, be placed directly upon the mucous surface, while the other is applied at different points of the external surface. If nitrate of silver is used, after other treatment has failed, strong solutions should at all events be avoided, and the weak solutions sould be applied over the whole surface of the pharynx, and especially over that portion below and behind the tongue. Dr. Klemm has used, instead of glycerine, a solution of morphia with mucilage, and has found that this means has a better effect than the astringents.

"The most effectual treatment in this, as in other disorders of nervous activity, is, according to the author, a change of air; and mountain air is, by all means the most beneficial; after it comes the sea air. Among mountain localities, those must be chosen which are moderately high and well protected; and those elevated situations which are recommended for lung complaints are unsuitable, as the raw, dry atmosphere only aggravates the evil. If it is not possible for the patient to visit the mountains or the sea-shore he should be sent into the country, and treated by the milk-cure and mineral waters. The atmospheric change is still the principal point, and the good results attainable by residence at watering and bathing-places are doubtless due, not to the high-priced mineral waters, but to the favorable situation and climate. The fact that in the various localities the most different agents are employed with equal results, shows plainly that the cure does not depend upon these, but on the effect of the atmosphere on the nerves and mucous membranes."—*Chicago Journal of Mental and Nervous Diseases.*

New Remedies.

Reported by J. S. UNZICKER, M. D.

Electricity in the Treatment of Chilblain.—Perhaps no disease, so simple in its origin and pathology, is so difficult to cure as chilblain. The various plans of treatment recommended by different authors are but temporary in their results. Ordinarily the liq. iodat. comp. and aq. ammon., in equal parts, as recommended by Dr. Balfour, of the Royal Military Asylum, at Chelsea, is most marked in its action. Another very good application is, coal oil and aq. ammon. in equal parts.

In the *Medical Times* the following statement is found: "Last winter, while treating a number of cases, it occurred to me to try the influence of electricity. I accordingly applied the secondary or induced current, and the result fulfilled my anticipations. This winter, an aggravated case of long standing, in a gentleman, presented itself to me, and I pursued this mode of treatment. The relief afforded was so decided as to leave no room for doubt, in my own mind, of its efficacy. We have, as the ultimate result of frostbite, a partial or complete paralysis of the vessels, as well as the nervous element, evinced by the pain and itching. Electricity tends to give tone to the parts and restore them to their normal condition."

Effects of Sugar upon Generation.—Prof. Henry Tanner, Queen's College, Birmingham, says: "I have every reason to believe that the action of sugar is most important in its influence upon the generative system, and I think there is just cause for considering that any animal may, by its use, be rendered incompetent for propagating its species. A breeder of some eminence, with a view to an improvement in the condition of his herd, added molasses to the dry food which he gave to his stock. It certainly produced the result he anticipated, for their general condition and appearance were most satisfactory; but this was accompanied by an influence he never expected, for his stock, which had always realized high prices as breeding stock, now, with few exceptions, proved valueless for that object, male and female being alike sterile."—*Boston Journal, January*, 1874.

Editorial.

The time is at hand when medical students and their preceptors begin to study the various circulars and advertisements sent them by representatives of the different medical colleges throughout the country, canvassing the merits and demerits of each, comparing the clinical course of this one with that, and the didactic lectures given by the individual professors in the colleges, until the financial question comes up, which very often solves the otherwise difficult problem, as to which place the aforesaid student shall wend his way in search of medical lore. We think Cincinnati can honestly claim to be one of the great medical centers of our country. We will consider a few of the advantages she presents. First, the medical schools—the Medical College of Ohio, Miami Medical College, and the Cincinnati College of Medicine and Surgery—are recognized as medical schools of the regular profession. The irregulars are the Pulte Medical (homeopathic), Eclectic Medical, and Physio-Medica (botanic).

The didactic course given by the regular schools compares favorably with that given by any similar institutions in the land, making the single exception of Harvard, which, to her credit, be it said, has practically adopted and is systematically carrying out a graded course of instruction, such as we believe no other college has adopted, but which we feel is demanded by the profession at large. There is just as much propriety in giving a youth who is entering the freshman class in a literary college, a problem in calculus to solve, or a page of Livy to translate, as there is in delivering to a young man beginning the study of medicine a lecture, on the subject of Bright's disease, progressive locomotor ataxia, Piragoff's operation, or cephalic version. Many of our medical colleges claim to give a graded course; let them take a step further, and let the profession know that they give no other—that students in the junior year are not given the same instruction at the same time in the same room with those in the senior or middle year, and *vice versa.* We believe the faculties of the respective colleges in Cincinnati are fairly considering the subject, and will at no distant day adopt a systematic graded course of instruction for those who seek to enter the medical profession through their portals. We know whereof we speak, when we assert that the colleges of this city have, in the gentlemen who compose their respective faculties, talented teachers that would insure success. They have been successful as competitors with colleges in other cities, and have attained a high standard. We hope, nay, we can not believe that they will call a halt and stick to the faulty old plan, but hope for the speedy announcement that they have placed themselves on the same plane with Harvard.

The clinical advantages offered in Cincinnati are superior. The Cincinnati Hospital is recognized as one of the most complete and well-arranged buildings for the purpose designed that can be found in any city, east or west. It has a capacity of six hundred beds. The amphitheater, where clinical lectures are delivered, daily, by the various members of the staff, has seats for the accommodation of six hundred students, and so arranged that they can all have a good view of both the patient and lecturer. The wards of the hospital are divided into surgical, medical, obstetrical, ophthalmological, and pathological, and have in attendance four surgeons, four physicians, two obstetricians, two ophthalmologists, and two pathologists. One-half of this number are on duty at the same time. The gentlemen who compose the hospital staff are superior clinical teachers, and give each day two lectures at the bedside or by the operator's table. A portion of the staff also, in addition to the above, give private courses to small classes on practical subjects. This we consider the very best method of imparting clinical instruction, and as there is constantly an abundance of material, there are correspondingly fine opportunities for those students who see fit to embrace them. All medical students are entitled to admission to the clinical lectures given in the hospital by the payment of the small fee of five dollars. There is in the hospital one of the most complete and best-arranged mortuaries we have ever visited. The gentlemen having charge of it are enthusiatic workers in their department; and the material that comes to their hands is used for the benefit of the students who attend their lectures in the amphitheater. Six resident physicians are chosen, after a competitive examination, each year. About five thousand patients are treated in this hospital annually.

St. Mary's Hospital, located on Betts and Linn streets, in the western part of the city, is being enlarged and reconstructed to a capacity of three hundred beds When finished, it will be furnished with all the modern improvements. Clinical lectures have not heretofore been given in this hospital, but, when completed, we have reason to believe that its doors and wards will be thrown open to those who may seek clinical instruction within its walls. Some of its staff are moving in that direction. The building will be completed this summer.

The Good Samaritan Hospital is located in the eastern part of the city, on East Sixth and Lock streets. This hospital was originally built by the United States government for the accommodation of sick and disabled seamen. and used during the late war as an army hospital. After the war closed it was sold by the government, and purchased by two of our large-hearted and generous citizens, and presented by them to the Sisters of Charity. This hospital accommodates about one hundred and fifty patients. It is well arranged and fitted up in the very best manner. Among its patients are the sick and disabled seamen semt there for treatment by the United States government. There is a good amphitheater connected with the hospital, where clinical lectures are delivered daily by the different members of the staff of the hospital. Who, by the way, also give clinical instruction to small classes in the wards. at the bedside, pursuing the same commendable course, given by the staff of the Cincinnati Hospital. The different colleges are amply supplied with anatomical material, which is furnished to students at very low rates. The expense of living is as low or less than in any other large city, either east or west.

Further, students who avail themselves of the opportunities offered, by coming to Cincinnati, have access to the largest and best-selected libraries to be found west of the Allegheny Mountains, and that without cost. We know that Cincinnati at this time is offering superior inducements, not enumerated above, to those who are seeking to enter the medical profession. And especially to country practitioners, who wish to keep abreast of the car of progress in medical science, we would say you can not do better than by coming to Cincinnati.

Miami Medical College.—Wm. B. Davis, M. D., has been elected to the chair of Materia Medica, vice Prof. E. B. Stevens, who has removed to Syracuse, New York.

Cincinnati Hospital.—P. S. Conner, M. D., has been appointed a member of the surgical staff, and J. C. McKenzie, M. D., of pathological staff. Decidedly good appointments.

Death from Chloroform.—A short time since, a young man from the country applied for admission to the Good Samaritan Hospital, to be treated for a tumor on his lower jaw. On the 19th of May, Dr. W. W. Dawson, assisted by Drs. P. S. Conner and G. B. Orr, proceeded to perform the operation. When the operation was partially completed, the pulse ceased to beat. The chloroform was withdrawn, and immediate efforts made and continued for three-quarters of an hour to resuscitate the patient, but unfortunately without avail.

Guarana.—A well-known analytical chemist recently called our attention to the fact that the active principle of this drug was the alkaloid, *caffein.* We embraced the first opportunity that presented, and prescribed the *caffein* for a case of sick headache, with the apparent effect of making the patient worse. We then resorted to the use of the guarana, giving twenty grains every half-hour. After the second powder the patient was almost entirely relieved. We have since tried the two remedies in the same manner, and have had like results in each (two) case. The cases where guarana seems to be of the most use is where the disease is dependent upon derangement of the alimentary canal. We have found it effective in diarrhea and dysentery, but evidently it contains other properties besides that of *caffein.*

Chicago Journal of Mental and Nervous Disease.—The second number comes to us in an enlarged form. Its editors are placing before its readers the latest and most reliable information to be obtained in this country and in Europe on the special subjects of mental and nervous affections.

Reviews and Notices.

Lectures on the Diseases of Infancy and Childhood. By CHARLES WEST, M. D. Fifth American, from the sixth revised and enlarged English edition. Henry C. Lea, Publisher, Philadelphia. For sale by Robert Clarke & Co. Price, $5.50.

This has been a standard work and text-book with the profession for more than a quarter of a century. It still holds its place, and comes out in another revised edition.

When we consider the importance of the subject treated by the author, and his eminent ability, with his systematic method of presenting his subject, we are at no loss to account for the great popularity of his valuable treatise. The fact, that at least one-third of a physician's practice is devoted to children; that one child in five dies within a year after birth; and one in three before the completion of the fifth year, is knowledge sufficient to attract the attention of every practitioner of the healing art. The author, in his introductory lecture (the work is written in lectures), presents the necessity of a certain tact for successfully investigating the diseases of children, the importance of a real love for children, and an understanding of child nature.

We are glad to see that preference is given to immediate auscultation instead of by use of the stethoscope, as its use nearly always startles and annoys the child—always listening first, before percussion, for the same reason.

Due stress is laid on the importance of great exactness in prescribing for infants and children, and the little value of posological tables as a guide in determining the dose to be given. As a rule, that which would define the dose of an opiate would not be applicable in determining the strength of a purgative or an emetic. Mentioning the great value of bromide of potash and hydrate of chloral as sedatives, caution is given in regard to their use in cases of great exhaustion; nor should they be given where there is serious organic disease of the heart. The use of blisters in infancy and early childhood are almost entirely abandoned. The great importance of giving medicines to the child in an agreeable form, instead of nauseating and bitter mixtures, is insisted upon.

On the subject of convulsions he says: "The grand reason of their frequency is no doubt to be found in the *predominance of the spinal over the cerebral system in early life.* In the adult, the controlling power of the brain checks the display of those reflex movements, which become at once evident if disease heighten the excitability of the spinal cord or cut off the influence of the brain from the paralyzed limb, or even if sleep suspend that influence for a season." The importance of narrowly scrutinizing the cause and meaning of every attack of convulsions is dwelt upon. In the *treatment* of congestion of the brain, great stress is laid on the keeping of the room at a proper temperature; the amount of light admitted; the number of persons allowed to be in it, the position of the bed or cot; the material of the pillow (should be of horse-hair), and the nature of its food. The physician should see that his directions in these matters are strictly carried out; their importance not being generally appreciated by the nurse and attendants. In this connection, we notice the author is very explicit in all his directions in regard to the treatment of disease, frequently giving formulæ of preparations prescribed.

The lectures on the respiratory organs are full and complete. Croup, diphtheria, pneumonia, and phthisis receive due attention, as do also those that pertain to the digestive apparatus.

In the treatment of scarlet fever, occasion is taken to dissent from the alleged virtues of belladonna as a prophylactic against that disease.

Treatment of Nervous and Rheumatic Affections by Static Electricity. By Dr. A. ARTHIUS. Translated from the French by J. H. ETHERIDGE, M. D. W. B. Keen, Cooke & Co., Chicago, Publishers.

In Chapter I. of this little volume, is given a very brief history of electricity since its discovery, and its application in the cure of disease. The author explains the difference between *static* electricity and *dynamic* electricity—the latter, voltaic electricity by induction; the former, frictional electricity—advocating the employment, therapeutically, of static electricity wherever and whenever that remedy is indicated.

Chapter II. presents the dangers of dynamic electricity and the necessity of great care and prudence in its use, citing a number of cases where permanent injury had been done to the patient by its use.

Chapter III. gives a description of the instrument used by the author, with illustrations of its use.

The remainder of the book is devoted to the clinical application of static electricity.

The author is an enthusiast on his subject, and we recognize in his little volume a valuable addition to our literature, on a subject that is attracting much attention among students of science and medicine. The translation is excellent.

The book is printed on tinted paper, the type is good, and altogether presents a very creditable appearance.

For sale by Robert Clarke & Co. Price, $2.00.

Ligation of Arteries. By Dr. L. H. FARABEUF.

This little manual, translated from the French by Dr. John D. Jackson, of Danville, Ky , is intended by its author to serve as a guide to students of medicine in acquiring the necessary manual dexterity by practice on the cadaver. In his preface, the author remarks: "Experience in teaching has, however, demonstrated to me that there is nothing easy to the beginner." And in accordance with this opinion, we find instructions given which seem absurdly precise; as where, for example, the operator is directed to lower his head at a certain stage of the operation? Many expressions in the translation are unfortunately vague, and therefore badly adapted to the instruction of beginners. The description of the method of tying a ligature is a case in point. Here the true knot, or reef-knot, as it is generally called, is figured under the designation of "straight" knot. In contrast with it we have a cut of the insecure knot, which, in this work, is called "oblique." In the very next sentence the word "oblique" is again used, but in its usual sense, when it is asserted the constructing noose, to be efficient, must be applied circularly and not obliquely. Other expressions occur, such as points of repair, the meaning of which is as obscure as it possibly can be in the original, even to those who know nothing of the French language. And the article on "compression without torsion" is, in the main, absolutely unintelligible. A very great mistake on the part of the translator, we think, is the retention of the French scale in giving the various measurements, etc; for measurements represented by fractions of the *metre* do not convey clear ideas of such measurements to the mind of the average reader, unaccustomed to the use of the French scale.

These, also, should have been translated into inches and fractions of the inch; and a reasonably close approximation to their actual equivalents would have been sufficient. What proportion of readers can be expected to comprehend, without a calculation, the length of an incision represented by the fraction O .06? This defect is in some degree diminished by the cut given in the translator's preface, contrasting the French and English scales. After so much criticism of this little book, we are glad to add our unqualified commendation of its general appearance. The type and illustrations are all that can be desired. These latter, indeed, are sometimes deceptively clear, particularly those of deep-seated vessels. This, however, is one of the faults common to illustrations of such subjects, in general. K.

Encyclopedia of the Practice of Medicine.

A number of the most eminent clinical instructors of Germany have undertaken to prepare, in a series of independent treatises, a complete encyclopedia of the practice of medicine, which will fully correspond to the present stand-point of clinical medicine. The work will embrace the entire range of special pathology and therapeutics, and will be complete in fifteen volumes, large octavo, of from 500 to 700 pages each. Among others, we notice the names of Prof. Geigel, Dr. Merkel, Prof. Leibermeister, Prof. Lebert, Dr. Haernish, Prof. Heubner, Dr. Oertel, Dr. Thomas, Dr. Curschman, Dr. Zuelzer, Prof. Hertz, as authors of articles in the first two volumes. It is proposed to publish three to four volumes a year, at as nearly as possible regular intervals, in order to distribute the cost of subscription equally over about four years.

Wm. Wood & Co. will publish a translation of the work as fast as issued by the European publishers. The type will be clear, the paper fine, and the engravings electrotypes of the originals.

We believe the translation and publishing of so great a medical work has never before been attempted. Terms of subscription payable upon the delivery of each volume: Fifteen volumes, octavo, muslin binding, per vol., $5.00; leather, $6.00; half morocco, $7.50.

Orders for subscription for the work may be sent to the office of the LANCET AND OBSERVER, or directed to Wm. Wood & Co., 27 Great Jones street, New York.

Dr. B. F. Dawson, the founder and late editor of the "American Journal of Obstetrics and Diseases of Women and Children," has relinquished the tripod, for the purpose of devoting his entire time to practice. The *Journal* has had a checkered career in its publication, having been published by no less than five different houses within the past seven years. The wonder to us is, that with such an experience it still lives. Only the great energy and ability of such a man as Dr. B. F. Dawson could have accomplish such a result—close his career with the *Journal*, and leave, in the hands of his successor, an established periodical.

Dr. Dawson offers a prize of one hundred and fifty dollars in gold for the best essay on "Congenital Deformities and Diseases depending on Maladies of the Uterus or Membranes;" the essays to be sent to the present publishers of the *Journal*, Wm. Wood & Co., 27 Great Jones Street, New York.

Dr. Paul F. Munde, who has during the past year been Dr. Dawson's associate, assumes the editorial chair, which he will no doubt fill with credit to himself and the *Journal*.

Obituary.

Obituary.—At a called meeting of the Zanesville Academy of Medicine, held Saturday, May 2, to take action in relation to the death of its late Fellow, Dr. J. G. F. Holston, Sen., which took place at Washington, D. C., May 1, 1874, the following resolutions were adopted:

Resolved, That in the death of Dr. Holston, the Zanesville Academy of Medicine loses one of its prominent members, and the profession at large an eminent physician and surgeon of extensive professional and literary culture, ripe experience, and accurate judgment; and society a warm-hearted, genial, and generous member, whose life has been mainly devoted to the good of his fellow-beings.

Resolved, That we attend the obsequies of our deceased fellow in a body.

Resolved, That we deeply sympathize with the family and relatives of the deceased.

Resolved, That the corresponding secretary transmit a copy of these resolutions to the family, the city press, and the medical journals.

C. C. HILDRETH, *Chairman.*

A. E. BELL, *Secretary pro. tem.*

THE CINCINNATI

LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.

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Dr. Keys

Original Communications.

Art. 1—Inorganic Cardiac Murmurs. Read before the Ohio State Medical Society, June 18, 1874, at its meeting in Toledo.

By A. T. KEYT, M. D., Cincinnati, Ohio.

Inorganic or functional cardiac murmurs are those which originate at the heart independent of structural change. The fact of the existence of such murmurs needs, at this day, no illustration or proof; but the appreciation of their full significance is a matter eminently worthy of our aim and study.

Murmur is the cherished sign of heart disease. It speaks of something wrong at the center of the circulation, and, when carefully interrogated, it usually answers with very precise and accurate information. It thus clothes itself with an exceeding interest. Its value is confessedly pre-eminent in the determination and discrimination of organic cardiac change. Yet, when it is known that the sign is also present in mere functional disorder and excitation of the organ, we are stimulated to inquire into the traits and circumstances of functional murmur, its frequency and extent, its mechanism of production, and its diagnosis from organic murmur —a field, indeed, which has not been neglected, but whose further cultivation may yield additional valuable fruits. The essayist's attempt may not be followed by direct results, yet he would fain hope that in some way it may "help to new facts."

CHARACTER AND SITUATION OF INORGANIC CARDIAC MURMURS.

Inorganic cardiac murmurs are soft, blowing sounds. They are always systolic in time, and are heard at two principal sites of maximum intensity: one at the second right costal cartilage, near the sternum; the other at, or in the neighborhood of, the third left costal cartilage—this left site being sometimes as high as the second left cartilage, sometimes more toward the left apex, sometimes nearer mid-sternum, rarely lower down. All agree that murmur with maximum intensity at the first point named, proceeds from the aortic orifice or artery; but difference of opinion obtains as to the origin of murmur with maximum intensity at or near the third left cartilage. Parrot located it at the right auriculo-ventricular orifice; Da Costa at the mitral valve; Hughes in the pulmonary artery. Hope held that functional murmur was only developed at the aortic orifice. Walshe states: "This murmur is, as far as I have observed, invariably basic in seat and systolic in time, produced at the orifices of the aorta and pulmonary artery." Flint writes: "An inorganic murmur may be produced either at the aortic or pulmonic orifice, or simultaneously at both orifices." And Fothergill, that "anæmic murmurs are usually aortic, but may be mitral."

Withholding for the present an expression as to the existence or not of functional apex murmur, we regard all inorganic murmurs located as described as unquestionably basic in seat, and accordingly we designate them, when distinguishable, as right and left basic—the first developed at the aortic orifice; the second at the pulmonic orifice.

The murmur may be heard over the entire base, so that the aortic and pulmonic elements appear of equal intensity. The instances where the pulmonic sound predominates over the aortic are far more frequent than the converse; and the instances where the pulmonic sound alone is heard, are again far more numerous than where the aortic alone is heard. The aortic element is more likely to manifest in the murmur from hæmic changes.

Also, in further comparison, the aortic murmur is more restricted to a narrow area; the pulmonic is more diffused, and may reach, in fainter tones, the limit of the left apex. It is understood that functional murmur is seldom heard between the scapulœ.

The exaltation of the left basic or pulmonic murmur, implied by the foregoing account, is, we are aware, something different from the usual teaching; nevertheless, we believe the estimate is true, and, further on, we may be able to produce some of the evidence upon which our conviction rests.

Inorganic murmur is peculiarly inconstant in existence and variable in intensity: then it was present, now it is absent—then it was plain, now it is indistinct; and usually it appears in excited, and disappears in tranquil, circulation. It is developed in certain morbid conditions of the system, such as are marked by changed blood-states, and becomes inaudible when systemic health is restored. It may be heard in a proportion of healthy individuals under circumstances of excited cardiac action; and in certain few, sick or well, it may be produced by the pressure of the stethoscope over the points at which the great arteries, particularly the pulmonary, come nearest the chest wall. It is audible in some only in certain positions of the body, and sometimes it is markedly modified by states of the respiration; thus, in one, being only or best heard in sustained inspiration, and in another in sustained expiration. When occurring in connection with blood change (hæmic), it is usually accompanied by murmur over the carotids and other large arteries, and by the venous hum, *bruit de diable*, in the neck.

If functional murmur originate at the mitral orifice, according to all accounts it is particularly fitful and intermitting, in contradistinction with sustained murmur of this site from structural lesion. It is said by some to be best heard above and within the usual locality of organic apex murmur, and to be usually confined to the cardiac limits in front.

Otherwise than by intensification of the sounds of the heart, especially of the first, which is usually observed, these are not materially changed in the presence of functional murmur.

THE SCOPE OF INORGANIC CARDIAC MURMURS.

The scope of inorganic cardiac murmurs is altogether of very considerable extent. The conditions which are known to have furnished instances are active exercise, febrile reaction, and palpitation from whatever cause arising; chlorosis and ænemia; chorea; pregnancy; uræmia, septicæmia, diphtheria, scorbutus, purpura, the exanthemata, typhus and typhoid fever. It is to be regretted that we know so little of the true relation, numerical and other, which murmur sustains to these several conditions. As it is, our statement of the matter can only be approximative and very general. However, in regard to some of these relations, we have attempted to throw some additional light by the introduction of some special observations of our own.

Active muscular exercise, owing to the acceleration it creates in the action of the heart, would seem to offer a peculiarly fitting state for the development of murmur at the arterial orifices; and in a very general way it is taught that functional murmur is sometimes so produced. Da Costa has gone further than others in showing that murmurs from mere temporary functional excitement of the heart, as by exercise, are not uncommon. He roughly estimates that such a murmur can be produced in at least one out of twenty healthy persons, and he is inclined to put down the proportion as much larger.*

In order to arrive at something definite in regard to the power of exercise to develop murmur in healthy persons, and to obtain information on other points, we planned and carried out a series of observations upon school-boys. We carefully examined them, one by one, and only accepted those in perfect health and free from murmur or noticeable cardiac imperfection of any kind. First, the boy was numbered and a record made of his age, respiration rate, pulse rate, normal action of his heart, and relative intensity of the right and left second sound. Then he was sent out to walk briskly to a point four hundred feet off and return. Immediately on his return we examined his heart, while Dr. A. B. Isham examined the pulse and respiration. When murmur was detected, we were attentive to its character, its point of maximum intensity, and the extent and direction of its diffusion. Also, the results, as recorded, were verified by Dr. Isham in all cases but a few in which the murmur had disappeared before he was through his part of the examination. The record shows one hundred and two (102) examinations, with distinct murmur in thirty-three (33) cases. The murmur was soft in every case. In one only was there an approach to an exception. Of this case, the following is the record:

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*Am. Jr. Med. Sci., July, 1869, p. 26.

"No. 53; age 11 years. *Before walking*—Respiration 24; pulse 96; heart's action normal; second sound of the heart plainer at the second right cartilage. *After walking*—Respiration 38; pulse 140; heart's action regular; murmur with equal intensity at right and left base, heard also in the upper part of the right vertebral groove and faintly at the apex—disappeared with the falling of the pulse; murmur louder and more diffused than any functional murmur we have ever heard, but not *harsh*."

The murmur was marked as basic in every instance. In only two examples, could any doubt as to the proper localization arise. In one of these, the murmur was heard further to the left than in the others; in the other, the murmur, though located definitely at the third left cartilage, and but faintly heard beyond this point in front, was also faintly audible in the left back. The thirty-three (33) cases, then, of functional murmur gave thirty-one (31) of unequivocal basic murmur, and two cases about which there might be controversy, but which we unhesitatingly place in the basic class.

Twenty-four (24) times out of the thirty-three, the murmur presented alone at the left base, in the larger proportion at or near the third cartilage; in the smaller, at or near the second. Six (6) times the murmur was accentuated at the left base, yet heard at the right, or at the apex, or at both points. Of these last, three were distributed to both the right base and the apex, two to the right base and not to the apex, and one to the apex and not to the right base.

Of the whole number, two (2) were noted with equal loudness at both the aortic and pulmonic spaces. One of these is No. 53, already given; the other is No. 69, age 12 *After walking*—Respirations 40; pulse 132, regular; murmur less intense than the first; was heard equally well at the two points named, and faintly at the apex.

In only one case was there accentuation at the second right cartilage. This is No. 86, age 9. *After walking*—Respiration 45; pulse 144, regular; murmur accentuated at the second right cartilage, not extending much above this point; heard also at third left cartilage, but not at apex.

		BEFORE WALKING.						AFTER WALKING.			
Number.	Age.	Respiration.	Pulse.	Heart's Action.	Pulmonic Second Sound Louder.	Aortic Second Sound Louder.	Both Equal.	Respiration.	Pulse.	Heart's Action.	Murmur.
1	9	24	96	Normal.	"			38	144	Reg.	No murmur.
2	13	24	88	"	"			36	160	"	Soft murmur, confined to the pulmonic space.
3	12	20	80	"	"			42	168	"	No murmur.
4	12	28	96	"		"		36	156	"	"
5	11	26	96	"	"			54	160	"	"
6	11	20	96	"	"			32	140	"	Murmur at left base, not heard at right base or apex.
7	10	24	96	"	"			44	172	"	No murmur.
8	10	24	88	"			"	36	132	"	"
9	11	20	88	"	"			32	148	"	"
10	9	24	100	"	"			32	128	"	"
11	9	20	88	"	"			36	120	"	Soft murmur at left base.
12	10	20	88	"				36	172	"	No murmur.
13	8	20	96	"	"			32	152	"	Soft murmur at left base.
14	8	28	92	"			"	36	132	"	No murmur.
15	11	24	80	"			"	38	140	"	Soft murmur at left base.
16	10	28	92	"			"	30	124	"	No murmur.
17	16	24	100	"	"			40	164	"	Soft murmur at left base.
18	11	24	88	"			"	25	100	"	No murmur.
19	10	24	100	"	"			32	160	"	Soft murmur at left base.
20	9	24	92	"	"			32	140	"	No murmur.
21	17	18	80	"	"			40	192	"	Soft murmur at left base.
22	9	28	100	"	"			38	168	"	No murmur.
23	6	24	100	"	"			36	140	"	"
24	11	24	100	"		"		40	176	"	"
25	9	24	88	"	"			42	152	"	"
26	10	24	104	"				36	188	"	"
27	11	20	88	"				37	148	"	"
28	11	24	100	"	"			32	140	"	Soft murmur at left base.
29	12	24	92	"	"			34	140	"	No murmur.
30	12	24	96	"	"			32	144	"	"
31	12	24	100	"			"	40	168	"	"
32	12	24	108	"	"			34	172	"	"
33	12	22	92	"				30	160	"	Soft murmur at left base.
34	10	28	96	"	"			40	160	"	Soft murmur at left base, less plain at right base and at apex.
35	11	24	98	"	"			36	160	"	No murmur.
36	12	24	84	"	"			32	152	"	Soft murmur at left base.
37	10	24	96	"	"			32	168	"	No murmur.
38	7	24	88	"	"			28	156	"	Soft murmur at left base.
39	7	28	96	"			"	48	144	"	No murmur.
40	9	24	96	"	"			36	164	"	"
41	8	24	96	"		"		45	140	"	"
42	12	16	84	"	"			30	160	"	"
43	9	24	96	"	"			36	136	"	"

		BEFORE WALKING.						AFTER WALKING.			
Number.	Age.	Respiration.	Pulse.	Heart's Action.	Pulmonic Second Sound Louder.	Aortic Second Sound Louder.	Both Equal.	Respiration.	Pulse.	Heart's Action.	Murmur.
44	14	20	96	Normal.	“			24	172	Reg.	No murmur.
45	12	24	100	“			“	40	168	“	Soft murmur at left base.
46	10	24	96	“	“			40	134	“	No murmur.
47	11	28	92	“	“			36	120	Irreg.	Soft murmur at left base.
48	14	24	72	“	“			36	132	Reg.	Plain murmur at left base.
49	14	28	94	“	“			40	148	“	Distinct murmur at left base, faint at apex.
50	16	24	96	“	“			30	136	“	No murmur.
51	18	20	68	“	“			36	96	Irreg. intermit.	“
52	19	28	80	“		“		36	152	Reg.	“
53	11	24	96	“		“		38	140	“	Murmur with equal intensity at right and left base; heard in upper part of right vertebral grove, and faintly at apex; disappeared with the falling of the pulse. Murmur louder and more diffused than any functional murmur we have ever heard, but not *harsh*.
54	8	24	92	“	“			32	104	“	Murmur at left base, faint at right base, not heard at apex.
55	7	28	92	“	“			30	100	Irreg. intermit.	No murmur.
56	12	24	96	“			“	40	164	Reg.	“
57	13	26	88	“	“			42	144	“	Soft murmur at left base.
58	14	20	64	“	“			48	120	“	“ “
59	12	16	80	“	“			36	128	“	No murmur.
60	12	16	88	“	“			40	160	“	“
61	11	26	96	“	“			40	160	“	“
62	12	24	100	“		“		40	172	“	“
63	13	24	88	“	“			48	156	“	“
64	14	16	80	“	“			36	148	“	Soft murmur at left base.
65	12	24	96	“	“			40	164	“	No murmur.
66	13	28	84	“	“			50	176	“	“
67	12	24	92	“	“			45	160	“	“
68	7	28	96	“	“			48	120	Irreg. intermit.	“
69	12	28	72	“	“			40	132	Reg.	Murmur less intense than in 53; equal at right and left base, faint at apex, not certainly heard in back.
70	6	30	100	“	“			36	120	“	No murmur.

		BEFORE WALKING.						AFTER WALKING.			
Number.	Age.	Respiration.	Pulse.	Heart's Action.	Pulmonic Second Sound Louder.	Aortic Second Sound Louder.	Both Equal.	Respiration.	Pulse.	Heart's Action.	Murmur.
71	13	24	92	Normal.	“			54	180	Reg.	Soft murmur strictly at left base.
72	7	24	88	“	“			36	144	“	No murmur.
73	11	24	92	“	“			44	168		Murmur plain at left base, faint at right.
74	9	28	76	“				40	104	“	No murmur.
75	14	20	96	“	“			40	172	“	“
76	10	24	80	“	“			32	112	Irreg.	“
77	13	20	92	“	“			36	168	Reg.	“
78	10	28	88	“	“			32	160	“	“
79	11	28	84	“	“			32	128	Irreg.	Soft murmur at left base, with some beats.
80	11	24	100	“	“			36	140	Reg.	No murmur.
81	12	20	80	“	“			32	124	Irreg.	“
82	9	24	96	“	“			42	136	Reg.	“
83	7	28	100	“				40	144	Irreg.	Murmur at left base, with some beats; faint at right and at apex.
84	15	24	96	“	“			36	144	Reg.	No murmur.
85	7	26	100	“	“			48	168	“	Soft murmur at left base.
86	9	28	84	“	“			45	144	“	Murmur distinctly accentuated at right base; not heard at apex.
87	7	28	100	“	“			60	180	“	No murmur.
88	8	24	84	“	“			48	150	“	“
89	11	24	84	“	“			64	188	“	“
90	13	24	80	“	“			36	144	“	“
91	9	28	96	“	“			36	168	“	“
92	14	24	72	“	“			48	180	“	“
93	13	24	76	“	“			36	144	“	“
94	12	24	92	“	“			48	200	“	“
95	12	28	96	“			“	40	176	“	Murmur at left base, more to the left than in the others.
96	10	28	72	“	“			32	144	“	No murmur.
97	13	28	96	“		“		40	148	“	Soft murmur at left base.
98	8	28	96	“	“			32	132	“	No murmur.
99	13	24	88	“		“		28	144	“	Soft murmur at left base.
100	13	20	84	“			“	36	180	“	No murmur.
101	9	24	96	“	“			30	144	“	“
102	15	28	92	“	“			36	168	“	Murmur plain at left base, indistinct at right and apex; also faintly audible in left vertebral groove.

The boys in their eagerness were somewhat excited, which will account for the pulse and respiration before exercise being higher in many of them than would be natural at a state of rest. After exercise the respirations were counted subsequent to the pulse; so that owing to the rapid fall the real frequency when the boys first came in, was greater than expressed in the table.

Some particulars were definitely observed, which do not appear in the record. The heart's action was forcible in all, violent in many; while the pulse did not keep pace with this augmented action, but, on the contrary, in many it exhibited marked feebleness. The sounds of the heart were preternaturally loud and clear, and in many, the first sound at the apex had a decided ringing quality. When murmur was heard, it did not seem to interfere in the least with the heart-sounds. In some, the murmur was plainly caught in the height of the excitement, but in a moment or two it was gone. In others, the turmoil and clamor seemed at first to drown the murmur which became evident when the excitement had somewhat calmed. In all, the rapidly falling pulsations soon put an end to the murmur.

It is worthy of statement that at least twelve boys were refused on account of their betraying signs of organic affection; of these, much the larger number presented apex systolic murmur, two basic diastolic, and two basic systolic. Of the last two murmurs, one was unmistakably aortic, and the other was probably also aortic, though not particularly accentuated at either this or the pulmonic site.

In the beginning of acute attacks, especially in children and females, according to our observation, a soft bellows-murmur is often heard at the base, which subsides with the decline of the first excitement. The sound is usually confined to the pulmonic site; we have not observed it as confined to the aortic site. Occasionally, with maximum intensity at the left base, it is heard faintly, as far as the apex in one direction, and the limits of the aortic area in the other. Exceptionally, it is heard with equal intensity at the right and left base.

We will here say that, for some considerable time past, we have carefully examined, with reference to this point, all our patients of the class named, and have been surprised at the number who presented the murmur. According to the impression left on our mind by these observations, we feel safe in estimating the number of murmur-betraying patients, under these circumstances, at not less than one-third the whole.

Ordinary palpitation, no doubt, affords in full complement the cases of basic murmur that have been credited to it by writers; but the connection between it and apex murmur without mitral lesion, in view of the contradictory testimony on the subject and the negative results of our own experience, we must regard as an unsettled question. Yet upon, the whole, we are inclined to admit the association as a rather rare phenomenon in cases of irregular tumultuous cardiac action.

Under the latter derivation is appropriately noticed the murmur of Da Costa's (Am. Jour. Med. Sci., July, 1869, p. 17) irritable heart. His idea of the frequent occurrence of functional cardiac murmur in a group of cases not anæmic, characterized by prolonged excitement of the heart's action is undoubtedly well taken; but his idea that this murmur is an apex murmur, we confess our inability to perceive, as borne out by his argument or cases. His careful localization of the murmur corresponds more nearly with the left base than with the apex; and indeed, if we merely substitute in his description the third cartilage for the third interspace, we will have described very accurately the more usual locality of murmur proceeding from the pulmonary orifice. And in fact the cases he details are readily analyzed into those whose murmur is pulmonic and functional, and those whose murmur is mitral and organic. Notwithstanding this, our exception to his localization of the murmur, the profession is indebted to Da Costa for bringing to light a group of frequently occurring cases, which adds much to our previous knowledge of the scope of functional murmur.

Co-existence of functional murmur with organic change, we can only conceive as applicable to our subject in cases where the arterial orifices and cavities remain intact, and the heart is incited to preternatural activity by some change; as, for instance, a defective mitral valve permitting of slight regurgitation. Here basic murmur would be purely functional, while apex murmur, though only engendered under the excited circulation, would have the obvious organic basis, and could not truly be said to be functional.

Changed states of the blood are the conditions which, according to all writers, lead most surely and frequently to the production of murmur. The sudden reduction of the quantity of the circulating mass is followed, as observed by Dr. Marshall Hall and others, by the phenomenon in question. We, too, have witnessed the same result after excessive uterine hemorrhage.

It is notorious that chlorosis and anæmia yield the murmur in a large per cent. of the cases. In these conditions the murmur is plainer, more diffused, and usually heard over the large arteries as well. The veins, also, in the neck send forth their continuous hum. When we reflect how very often anæmia passes under the notice of the physician as principal or concomitant affection, the extensive range of murmur from this source becomes impressively apparent.

It is a well-known fact that heart-murmurs are very frequently associated with chorea. The question that concerns us now is, to what extent are they inorganic? In this disease the murmurs heard are both basic and apex; and it is difficult to say which of the two sorts is the more common. We should say the basic murmur is almost invariably functional (though organic basic murmur is not out of the question). Pronounced anæmia being a leading feature of chorea, and palpitation a common accompaniment, functional murmur the offspring of these conditions, must needs declare itself as a very frequent phenomenon in chorea. And this accords with experience. Trosseau teaches (Clinical Medicine, article "Chorea") that "palpitation and soft blowing murmurs are often present in chorea; and that the murmur is usually basic and due to anæmia."

But, as before stated, apex murmurs are also very frequent in chorea. Two main theories are put forth to account for this connection—one that the mitral valve is incompetent in consequence of changes wrought by endocarditis; the other that it is incompetent in consequence of irregular action of its muscular apparatus. The advocates of the first invoke the pathological relationships between chorea and acute rheumatism; those of the second, the discordant muscular movements of chorea. Into the merits of the controversy we obviously can not here enter, but beg leave to state that with the evidence at our command, we conclude that while organic mitral regurgitant murmur is often present in chorea, the existence of a purely inorganic mitral regurgitant murmur is yet *sub judice*.

The development of cardiac murmur as a concomitant of pregnancy can not be regarded as a very frequent occurrence, yet the connection is occasionally observed. It is more likely to be met with in cases where anæmia is apparent, and especially likely to be found in cases presenting the "irritable heart." As a good illustrative case, we present the following, which recently passed under our care: The lady was six months pregnant with her eighth child, and for some weeks previous had suffered from palpitation and for a few days from myalgia. Her general appearance was delicate, but not decidedly anæmic. Her pulse was 120, quick, and heart's action excited; respiration correspondingly frequent. The sounds of the heart were all distinct and preternaturally clear. A soft systolic murmur was audible with maximum intensity at the base; it was well heard at the aortic cartilage, but more distinctly at the pulmonic cartilage. It was heard equally well to the right and left of the upper end of the sternum. The sound impressed the ear as if beginning with the first sound and then flowing on or away till drowned by the sharp second sound. Arterial murmur was distinct over either carotid. No venous hum. The murmur was not certainly heard in the back. The excited cardiac action and accompanying basic murmur persisted until a few days after delivery, and then the one subsided and the other departed as by magic.

The other conditions named as contributing examples of functional murmur, we pass without particularizing, accepting the general record that murmur has been observed with more or less frequency in all of them.

Thus, functional murmur has a breadth of range and frequency of manifestation that renders the subject one of exceeding importance. It may be thought if inorganic murmur has such scope, where is the paramount value of murmur as a sign of organic heart disease. The value remains to those, and only those who thoroughly understand the whole subject.

THE MECHANISM OF INORGANIC CARDIAC MURMURS.

Before entering upon this branch of the subject, we wish to premise—

First. Experiments with liquids passing along or through cavities and tubes, in imitation of what takes place at the heart and in the vessels, with the view of ascertaining the sonorous phenomena, have been made over and over again. Nothing can be expected to be gained by further experimentation in this direction. But, in verification of the results obtained, and illustrative of the way in which cardiac murmurs are produced, we beg leave to refer, as we advance, to the sounds produced by the simple working of the elastic syringe, under different conditions, intended to represent, in some manner, those pertaining to the movements of the heart and the blood it conveys.

Second. We premise that we subscribe to the view that, in general terms, the first sound of the heart is due to the sudden closure of the auriculo-ventricular valves, and the impulsion of the blood against them; and the second sound to the like closure of the semilunar valves, and impulsion of the blood against them.

The sounds thus produced, when compared with each other, have points of difference; but both are short, well defined, and abruptly ending. They are stationary sounds—beginning and ceasing at the same spot. They symbolize the arrest of the blood at the moment, by the mechanism of the valves.

Murmur is distinct from the cardiac sounds. It results from the transit of the blood, under the required conditions, through the orifices and along the passages. It is more prolonged, less defined, and when not obliterated by the next heart-sound, it dies away. It distinctly impresses the ear, as a moving sound, and carried along with the current. It symbolizes the passage of the blood, at the time, in direct or reverse course. In a word, murmur is distinguished from the heart-sounds in that it is the sound of a passing fluid, generating and conveying sonorous vibrations as it goes. Thus, one order of mechanism produces the cardiac sounds; another the cardiac bruits. In working the elastic syringe, the click of the valves represents the sounds of the heart, and the soft noise of the fluid issuing through the efferent orifice, the cardiac systolic direct murmur.

Passing to the immediate subject: The blood ever moves along its accustomed channels with a degree of friction between its columns and the surface over which they glide. This friction must inevitably cause vibrations in the parietes, and in the blood itself, and which sets of vibrations are instantly intercommunicated. Friction, then, and resulting vibrations are inseparable from the circulation of the blood.

The blood at the heart passes from aperture to cavity, and from cavity to aperture. It is subjected to a pump-like action, and forcibly propelled by the contracting ventricles through the efferent orifices, where it meets and clashes with that already in the arteries. All this disturbs the equal flow, and causes eddies and jarring currents—in a word, vibrations in the blood—and these are at once transmitted to the parietes.

Then, especially at the heart, we have vibrations from the combined operation of friction and blood agitation. The vibrations are inevitable; though, when all is natural, they are not sufficiently sonorous to be audible at the surface of the chest. Indeed, in health, the adaptation and harmony between the moving blood and the containing organs are so complete that the circulation is maintained with the least possible amount of attrition and commotion. The heart, with its perfect mechanism and rhythmical movement; the membrane, with its delicate smoothness, that lines the cavities, valves, and orifices; the blood, with its peculiar constitution, happily combining fluidity, density, viscidity, and yet extreme mobility—all concur to facilitate the circulation, and render it regular and equal, and as smooth and free from vibrations as can be within the ends to be accomplished.

Thus, in the conditions of healthy blood, moving with natural velocity through normal cavities and passages, the friction and agitation prove not sufficient to develop audible murmur. But change the conditions, so as to disturb the harmonious relationship between the flowing blood and the containing parietes (otherwise than by slowing the circulation), and accordingly the vibrations are increased, and prove quite sufficient for the production of audible murmur.

For the purpose of fuller illustration, we will here refer briefly to the mechanism of organic cardiac bruits. When the change affects, structurally, the heart and great vessels, we have in marked degree the disturbed relationship, and, through it, the causes of the sonorous vibrations which reach the ear in the form of organic murmurs. If the orifices are contracted, or the endocardium roughened, the blood, in its onward flow, meets with obstruction or impediment that can but give rise to increased friction and commotion, engendering vibrations so plainly audible as the presystolic and systolic direct murmurs.

And when the valvular barriers are impaired, the backward flow of the blood over their tense, and usually rigid and roughened rims, with the blood-stream already broken up and in commotion, thrown into greater tumult by its collision with the opposing column, we have ample causes for the vibrations which express themselves so strikingly as the systolic and diastolic regurgitant murmurs.

Again, the systolic direct murmur that is heard in dilatation of one or the other ventricle, without orificial or valvular change, finds its best explanation in the disproportion which exists between the caliber of the ventricle and that of the arterial opening, whereby the latter sustains to the former the relation of a contracted orifice to a normal ventricle, and consequently affords the same conditions for the production of sound. It is also plausible that in dilatation of the ventricle, misdirection of the current, so that the blood is propelled against, instead of directly through, the orifice, may be sometimes a sufficient cause of murmur.

Now, as regards the production of inorganic murmurs, this, too, requires a departure from the healthy and normal conditions and relationship between the heart and its moving contents; but, in this case, the change concerns the blood, its quantity, quality, and rate of movement. Likewise the same principles of friction and jarring currents, engendering vibrations and sound, obtain here as in the mechanism of sound from organic lesions.

In all cases, in order to the development of murmur, organic or inorganic, a certain velocity of the blood-current is a *sine qua non;* though it may be remembered that quickened transmission through the orifices is sometimes in alternation, with lengthened intervals between the systoles. In the presence of structural change, the rate required may not be above, or may even be considerably below, that of the normal circulation; yet here, too, it is known that the movement may be slowed to the point at which murmur is no longer heard. In the absence of organic change, a higher velocity is required; and though other influences than this may, and often do, contribute to the result, the statement is undoubtedly true that inorganic cardiac murmur is incompatible with other than a quickened transit of blood at the heart.

These principles are well shown by the syringe. The bulb represents the ventricle; the efferent orifice, with its valve intact, the arterial orifice roughened by disease; the water, the blood. It will be found that the bulb, subjected to a very moderate compression-rate, sends the fluid through the orifice with sufficient rapidity to generate sound, but that the compression-rate may be lowered until the current becomes silent in its passage. Now, remove the valve, and the smooth, unobstructed orifice will represent the normal arterial orifice; and it will be found that a notably more rapid compression-rate is required to elicit the murmur.

The quickened current acts in the production of murmur by carrying the blood against and through the orifices with such impetuosity as to augment the friction and blood-commotion to the extent of developing the requisite sonorous vibrations.

By this principle alone must be explained the murmur of palpitation, from whatever cause produced, not connected with cardiac or hæmic change.

The next instance of murmur, whose production we attempt to explain, is that following great and sudden reduction of the volume of the blood. The reaction which succeeds such loss is marked, especially, by that excited action of the heart whose effect we have just considered, and which impels the blood through its chambers and orifices, and along the great arteries, with vibratory sound-producing thrill. Again, the reduction of the volume of the blood permits the arteries, by virtue of the elasticity of their coats, to contract, while the cavities of the heart remain nearly or quite of the same capacity; thus virtually establishing the relationship and murmur-evoking property of constricted orifices. The principle needs no illustration, that, with the same rate of contraction, the blood is forced by the ventricle through a narrowed opening much more rapidly than through a normal one. Once more, when the amount of blood is diminished, the tension of the cardiac and arterial walls is lowered, whereby they are placed in condition to be more readily thrown into vibrations than when they are well filled and the tension is higher. The principle, so thoroughly proven by experiment, may be verified again by the syringe and appropriate apparatus for working it at lower and higher pressure of the fluid. Thus it is found that a given current-rate becomes audible at a lower, and inaudible at a higher, tension. This principle must have force at the heart, and be an important factor in the explanation of murmur from loss of blood.

The additional circumstance of the blood becoming watery under hemorrhage, and thus favoring vibrations, is not to be lost sight of in this connection; but a fuller consideration of the agency of thinness of blood is just at hand.

Murmur associated with qualitative blood-changes next seeks solution. This is confessedly a difficult problem. However, the murmur of chlorosis and anæmia would seem to be due in great measure to the leading pathological feature, tenuity of the blood. The fact that sound is more strikingly incident to the passage of a thin liquid than to that of a thicker one along membranous tubes, has been amply attested; but it may be shown afresh by recourse to our favorite instrument. If, first, water be passed, it will be noticed how gentle the propulsion required to evoke distinct sound; if next, a more consistent liquid, as solution of starch, be passed, it will be noticed, in contrast, how vigorous the propulsion required to elicit the same sonorous effect.

According to this principle, blood preternaturally thin, propelled through the cardio-arterial orifices, must originate increased sonorous vibrations. A watery state of the blood characterizes especially chlorosis and anæmia—conditions *par excellence*, we have seen, in which functional basic murmur presents. Hence, may we not conclude that thinness of the blood is the efficient producing agency of the cardiac bruits heard in these cases? Other influences, we may presume as operating toward this end, are the usually quickened circulation, and appertaining loss of tonicity in the heart and arteries.

The murmurs which are occasionally heard in the other conditions than those just named, are probably to be explained by a combination of agencies. Thus we conceive the cardiac bruit of pregnancy may arise from augmented velocity of the current, through the orifices, in connection with the increased fluidity of the blood by diminution of the red corpuscles and augmentation of the water known to prevail in this condition. And in septicæmia, scorbutus, purpura, the exanthemata, typhus and typhoid fever, etc., murmur, when present, would seem to be due partly to the blood's quickened transmission, partly to its diminished viscosity, answering to a broken-down diffluent condition, and partly to reduced tonicity in the cardio-arterial parieties by which, as in decreased tension, they are more readily thrown into sonorous vibrations. These factors undoubtedly pertain to these affections, though they are variously combined, and are operative in accordance with the individual manifestations.

THE MECHANISM OF INORGANIC APEX MURMUR.

The foregoing remarks have applied almost exclusively to functional basic murmur. Inasmuch as the existence of functional apex murmur is admitted by many, the proposed mechanism of its production properly claims attention. The explanation is by the way of the conditions which prevent the closure of the auriculoventricular valves, and the regurgitation permitted to take place through them. The notion (Bamberger) that the murmur is due to the peculiar sonorous quality of the valves themselves, acquired through atony from fatty degeneration of the musculi papillares, we dismiss with the remark that such intonation of functionally perfect valves, if produced, would only constitute a modification of the first sound of the heart, and not be a true murmur, which is always the sound of a passing fluid. Moreover, such modified sound would be strictly of organic origin, instead of inorganic, with which we are now concerned. The sound in question, when produced, is none other than a regurgitant murmur. To account for the reflux, there is, first, the idea of Andrew, which has certainly the merit of ingenuity, that the valves do not perfectly close the orifice, because the latter, during the ventricular systole, assumes a round instead of the normal oval form, to which alone they are adapted. But the more common explanation is that the valves are rendered temporarily incompetent by irregular contraction of the columnæ papillares, whereby those segments are kept from completely closing, and the blood issues through the crevice. Thus, Walshe writes: "The most plausible hypothesis seems to be that irregular and occasional reflux takes place at the mitral orifice, through disordered action of the muscular apparatus connected with the valves." And so Flint refers this, to him, dubious murmur, "to irregular contraction of the papillary muscles, involving temporary insufficiency and regurgitation." And Fothergill, who, by the way, has little to say of inorganic murmurs, esteems the systolic apex murmur, which he admits to be sometimes heard in Basedow's disease, "as liable to occur from disordered action of the musculi papillares," and suggests the same cause as probably productive of the murmur in Da Costa's "irritable heart." And so on, this theory is almost universally reiterated as offering solution of the problem. It is, indeed, singular there should be such accord upon a matter of mere assumption; for it must be admitted there is not a particle of proof that these fleshy columns ever contract, except in unison with the body of the ventricle. The idea would seem to have grown out of the frequent association of apex murmur with chorea, and the naturally easy ascription to the heart-muscle, as a whole, of similar discordant action to that observed in the general choreac phenomena. And yet one would think the entire absence of evidence that chorea ever affects involuntary muscles, together with the fact that the rhythm of the heart is usually regular in this disorder, ought to be sufficient to make one hesitate to assent to this specious notion. If we have reason to doubt the reality of discordant action of the papillary muscles in chorea, much less can the idea be satisfactorily maintained as applied to ordinary palpitation.

A theory more plausible to our mind than any of these, would be that regurgitation takes place under the immediate tumult of the heart and action of the moving blood itself upon the valves. In the general tumult and disorder, the blood in the ventricle catches the floating segments in such way that, instead of sweeping them shut, as in normal action, it holds them apart and regurgitates through; or, in other words, a portion of the blood in its quickened and discordant movement gets the start, as it were, of the closing valves, and makes for itself a reverse passage. But really the explanation should come from those who believe this murmur is of comparatively frequent production, and not be attempted by us who confine its possible range to such narrow limits.

ANATOMICAL AND PHYSIOLOGICAL CONSIDERATIONS IN FAVOR OF THE RELATIVE PROMINENCE OF PULMONIC INORGANIC MURMUR.

In support of the prominence, we have assigned to murmur proceeding from the pulmonic orifice, we here state, in addition, the following anatomical and physiological considerations:

1. The velocity of the current through the pulmonic orifice is the same, or very nearly the same, as through the aortic orifice; and hence the vibrations, due singly to rapid transit of the blood, are produced at the former orifice with the same, or very nearly the same, intensity as at the latter.

We accept, as true, the usual teaching that the right ventricle and right arterial orifice are larger, respectively, than the left ventricle and left arterial orifice. We have not the data for a mathematical computation, but regard it a reasonable inference that the ratio between the capacity of the ventricle and area of the corresponding arterial orifice on one side is about equal to that on the other. It follows, then, that the ventricles contracting and completing their contraction synchronously, the blood they contain must be propelled through either orifice at about the same rate of speed.

Then we conclude that the velocity of the blood-current through the pulmonic aperture, in the same manner as through the aortic, is quite sufficient to generate sonorous vibrations.

2. The vibrations are reinforced at this orifice, because of its larger size admitting of a larger blood-column, and thereby furnishing the conditions for a greater amount of friction and commotion,

as well as a greater amount of membranous surface for vibratory impression—the whole effect being, as stated, to increase the pulmonic murmur.

3. The blood pressure and parietal tension in the right ventricle and artery being markedly less than in the left, the blood and parietes of the former are more easily thrown into effective vibrations by the onward rush through the arterial orifice; and this is an evident cause of enhancement of murmur at the pulmonic site.

4. Another element of augmentation is, that the walls of the right ventricle and coats of the pulmonary artery are much thinner than those of the left ventricle and aorta, and consequently respond more promptly and freely than the latter, to the causes which produce the vibrations. It is needless to say that this is in correspondence with another principle well established by experiment.

5. The pulmonary artery, in origin and first part of its course, lies in front of the aorta, nearer the chest-wall; and consequently the vibrations communicated to its parietes are more readily transmitted to the surface. This is a fact which needs no elaboration; its importance must be at once acknowledged.

These considerations are of positive import, and each, except the first, declares its quota of advantage for the pulmonic murmur. The first—namely, velocity of flow through the pulmonic orifice—if not exactly equal to that through the aortic, is, as we have seen, so slightly less, that we claim the difference would be more than made up by the least of the factors which enhance the pulmonic murmur.

We would next support our view by an argument drawn from the phenomena of the second sound of the heart. The loudness of this sound, other things being equal, must be in proportion to the energy of the forces which close the sigmoid valves. A light blood-pressure and a feeble arterial recoil must yield a comparatively low sound; while, conversely, a high blood-pressure and strong arterial recoil must yield a comparatively loud sound. The forces which close the aortic and pulmonic valves, respectively, are manifestly of very different potency: the blood-pressure in the pulmonary artery being less, in the aorta much more; and the coats of the former being thinner and weaker, of the latter much thicker and stronger. We should expect a corresponding marked difference in the sound of the two sets of valves, and that the sound of the aortic would constantly and strikingly exceed that of the pulmonic valves. But the truth is at variance with this natural expectation. In fact, the second sound of the heart, as heard at the third left cartilage, is always a well-defined, well-pronounced phenomenon, and is often (how often we will see further on) even more distinct than the second sound, as heard at the second right cartilage.

There is the teaching of Skoda, well accepted, that accentuation of the pulmonic sound is declared where there is obstruction or regurgitation at the mitral orifice; and the showing, especially, by Fothergill, that the same intensification of this sound occurs in obstruction to the passage of blood through the lungs, from whatever cause arising. To this scope of relative predominence, we add what we believe also to be true, namely, that accentuation of the pulmonic sound over the aortic is a physiological manifestation in the majority of individuals. In support of this view we can find no authority, all published testimony being against it. Nevertheless, our conviction is the result of many careful observations, directed to this point. First, in a general way, we have compared the right and left second sound in a large number of patients affected with slight ailments, such as would not modify the relative status of the sounds. In these, much the larger number presented accentuation of the pulmonic sound. Of these observations we kept no record, but the number was quite sufficient for deduction, and of the general result as stated there could be no question.

Next, in our observations upon healthy boys, before referred to, one object of study was the relative intensity of the right and left second sound. The one hundred and two boys, ranging from six to nineteen years of age, were, one by one, carefully examined before walking with reference to this point. The record shows that the second sound of the heart was accentuated at the third left cartilage in seventy-eight (78), at the second right cartilage in ten (10), and that the sound was equally loud at either point in fourteen (14).

Our argument is much strengthened by these results, but it can stand well even on the already accepted status of the two sounds; namely, that the pulmonic is uniformly well declared, and under impediment to the onward flow of the blood in the heart or lungs, it becomes signally intensified over the aortic. The explanation of this last phenomenon is, that the pulmonic valves are more energetically closed in consequence of the increased backward pressure of the blood against them, and in cases of permanent obstruction, the added influence of more or less thickening of the coats of the artery. Yet, with all reinforcement, the forces that shut these valves must be counted far inferior to the forces that shut the aortic valves. If permitted to pursue the line by the way of our facts—namely, that the left second sound is not only uniformly well pronounced, but usually intensified over the right second sound—we are presented yet more strikingly with the paradox that the greater pulmonic sound results from feebler forces, the lesser aortic from stronger forces.

Thus is demonstrated that there are causes which operate to reinforce or intensify the sound of the pulmonic valves which do not pertain to the aortic. Searching for these causes, we find certain anatomical and physiological conditions peculiar to the pulmonic site, and that these are essentially the same—acting, though it be, by different order of mechanism—as those whose effect, we argued, would be to reinforce the pulmonic *murmur*. They are, briefly, a larger blood-column and extent of membranous surface; less blood-pressure and arterial tension; thinner containing parietes; and last, but greatest, nearer proximity of the valves and artery to the chest-wall. The pulmonic second sound and pulmonic murmur proceed from the same site at the arterial orifice—the first from the backward flow against the closed valves; the second from the forward flow through the open valve; and it is plain, notwithstanding the different mechanism, that these reinforcing agencies must pertain to either alike. Thus the circle is complete; and from the phenomena of the second sound of the heart in its twofold character, we deduce an important and not easily questioned argument in favor of the relative frequency and intensity of the pulmonic murmur.

If, to the foregoing considerations, we here add mentally the clinical facts that may be adduced, showing the paramount frequency of this murmur, we think we have our justification for the conviction we expressed in the first part of this paper, viz: that pulmonic functional murmur is entitled to a different and more prominent position than hitherto assigned it.

THE DIAGNOSIS OF INORGANIC MURMURS.

Obviously the great end of our study of the subject of inorganic murmurs is, that we may appreciate their extent, and be enabled to make the diagnosis between them and organic murmurs. We have aimed, in the foregoing exposition, to include all the points that would serve us in this important discrimination. But to secure evident advantages, we have chosen to present the diagnosis concisely as may be in a separate direct study.

The points to be considered in the differentiation are the character of the murmur, as to its quality, diffusion, and behavior; the bearing upon it of the associate circumstances and conditions, systemic and cardiac; its relations to the sounds of the heart; its rhythm, and the position of its maximum intensity.

Inorganic murmurs are uniformly soft in quality. This will not help us much, for the majority of organic murmurs are, likewise, soft bellows sounds. Yet, if a murmur is harsh or rough, we can positively decide that it results from organic changes.

Inorganic murmurs, as a rule, are not propagated far in any direction from the point of their origin, nor are they *ever* extensively diffused. They are usually heard over a part of the cardiac region in front, and only exceptionally in the back. These murmurs, when of hæmic origin, have more diffusion, and are then often supplemented by arterial murmur and venous hum; but even here the limits of the true cardiac murmur are only moderately extended. Some organic murmurs are confined to as narrow or moderate limits as the inorganic. But others have a much more extended range. It is common for organic murmurs to be heard in the back and, not unfrequently, over the greater part of the chest. We recently examined a case where a mitral regurgitant murmur was plainly audible over the umbilicus in front and the buttocks behind.

Thus, if the murmur be very limited in its audible area, we strongly suspect from this that it is inorganic. If it be of moderate extent, the indication alone is of little value. But if the murmur be considerably diffused, we strongly suspect, and if extensively diffused we are positively certain, it is organic.

Inorganic murmurs, arising as they do from conditions in their nature changeable and temporary, are themselves inconstant, variable, and transient. Organic murmurs, resulting as they do from conditions that are stable and permanent, are themselves constant, uniform, and lasting. So strikingly apparent is this distinction, that inorganic is designated the "inconstant murmur," and organic the "constant murmur." To its practical value, we know of but one drawback, viz: murmur depending upon a basis of structural change which is only developed under favoring auxiliary conditions. Such murmur will come and go, and change and fluctuate, just as a purely functional one. The best statement of the point we can make is, that all constant murmurs are organic, and all inconstant murmurs are inorganic, except a few with organic basis.

Circumstances apparently inconsiderable modify appreciably, sometimes decidedly, functional murmur. Thus, Dr. J. H. Hutchinson (Am. Jour. Med. Soc., April, 1872, p. 407) reports three cases of functional basic murmur—two of which were located at the pulmonary cartilage, where the murmurs were distinctly intensified by placing the patients on their back. And it is well known that functional murmur is intensified in some by the act of held inspiration, and in others by the act of held expiration. It has not been observed that such influences so modify organic murmurs.

But of the associate circumstances bearing upon the distinction, the most significant is the influence of states of the heart's action. Inorganic murmur, when present, is uniformly found in relation with quickened cardiac action. It appears with and continues through the acceleration, but becomes inaudible when quiet is restored. Organic murmur is in the rule constant under fluctuations in the circulation. It is often heard when the pulsations are preternaturally slow; and only in exceptional instances does it manifest alone under excited action. In practical application this test is invaluable. If the circulation is excited, and a murmur is heard, it may be inorganic or organic. If, in this case, the circulation becomes quiet, and the murmur ceases, the chances are largely that it was an inorganic murmur that was heard. But, if when the circulation becomes quiet, the murmur is still heard, the rule will scarcely admit of an exception that it is organic; or if, at the first examination, the heart is beating quietly without undue frequency or quickness of contraction, and murmur is heard, we may be sure it is of structural origin.

We admit that further observations are needed to determine whether in well-marked chlorosis and anæmia, where the vibrations, as known, are peculiarly sonorous, it might be possible to find the conjunction of inorganic murmur and a quiet circulation. But in the absence of necessary facts, we reason that cases of this condition, in which the blood would not pass the orifices with accelerated speed, would be difficult to find, and if found, the murmur would not be there.

Age may be considered: inorganic murmurs being relatively more frequent in early life; organic in later. And sex—females being more prone than males to inorganic murmur.

Attention to the concomitant affection or condition is of more or less importance; in cases of doubt, it often becomes valuable. Yet the information thus derived is of itself usually equivocal, because the conditions which give rise to functional murmur are often found co-existing with structural heart disease; and certain systemic states in which heart disease is in direct pathological relation lead through blood-changes and functional excitation of the organ to inorganic murmur. However, it is well to take into the account the presence of anæmia, blood-loss, a nervous constitution, febrile reaction, and other causes for excited cardiac action, etc., on the side of functional murmur; and rheumatism, Bright's disease, fatty and atheromatous change, etc., on the side of structural murmur.

Of definite significance are indications, or not, outside of murmur, of coincident organic heart disease. Murmur in the presence of otherwise evident heart disease—be it hypertrophy, dilatation, fatty change or other—is in all cases to be counted organic, and this even though the orifice at which the murmur is generated appear normal. Murmur, in the absence of otherwise evident heart disease, is obviously the murmur whose organic or inorganic character we are called upon to determine. For unquestionably there is a large class of organic cases in which *constant* murmur is the only definite evidence of the change at the heart; and we have reason to believe that this class is supplemented with a much smaller class, in which *inconstant* murmur developed, as before alluded to, under excited cardiac action, is the only indication of such lesion. To distinguish the murmur of this class as organic, and the murmur of the other large class in hearts free from structural change as inorganic, is the vital question before us.

As relates to the sounds of the heart: In the presence of inorganic murmur, the valves being perfect and acted upon by the agencies that produce the murmur, they give forth only their normal or somewhat intensified sound. In the presence of organic murmur, the valves being more or less impaired in the great majority of cases, the heart-sounds are variously modified, usually in marked degree, not unfrequently one or the other sound being completely obliterated, and murmur taking its place.

Then, if, in a given case, the sounds of the heart are normal, or only intensified, the probability is great that the pertaining murmur results from functional cause alone. But if the sounds are abnormally modified other than regularly intensified, the pertaining murmur results from organic change.

In regard to the bearing of *time* in the heart's revolution, at which the murmur is observed: Inorganic murmurs are invariably systolic; organic are systolic, pre-systolic, and diastolic. So the question has to do alone with murmurs of systolic time. The rhythm is easily determined, and in this we have attained a great simplification.

The position of the murmur as related to the base or apex of the heart is of highest import. Inorganic murmurs are basic, with few, if any exceptions. We may positively exclude apex murmurs, which show any continuance, from the inorganic class. And our own experience has not furnished an unequivocal example of functional apex murmur. But the difficulty is to decide sometimes between apex and *left* basic murmur. Murmur from the pulmonic orifice heard at its more usual site, the third left cartilage, is not far removed from murmur from the mitral valve heard at its usual site, near the left nipple, and when the pulmonic murmur appears, as not rarely happens, more to the left, it may easily be mistaken for murmur proceeding from the mitral valve. Moreover, confusion has arisen from the acceptation of functional murmur as originating at the mitral valve, and being located near the left base, rather than near the apex. Really, though the points of distinction are in most cases sufficiently marked, and the comparatively few cases of serious difficulty can, with rare exceptions, be cleared up, by familiarity with, and attention to these points, including the history and concurrent circumstances bearing upon them.

We regard, then, inorganic murmurs as reduced practically to those of systolic time and basic site. The next step is to distinguish between basic murmurs that are functional and basic systolic murmurs that are organic. Murmur at the aortic area alone, or decidedly accentuated at that point, is usually organic. If it is harsh and propagated, as then likely to be, along the course of the vessel and to the back, it is certainly organic. On the other hand, murmur at the pulmonic area alone or accentuated at that point, is almost invariably inorganic. The reason for this diversity and main distinction, is plainly that structural change is as common in the left endocardium and it is rare in the right.

We have now arrived at what we consider the most important point in the diagnosis of inorganic murmurs—namely, that murmurs truly located at the pulmonic area, arise from inorganic causes in the vast majority of instances. The exceptions are few, and sharply defined; aside from congenital malformation, pressure upon the pulmonary artery from pericardial exudation, from consolidation of the lung, from enlarged bronchial glands, from aneurismal or other tumor, comprise about all the exocardial causes of pulmonic murmur; and endocardial are so rare that, by common consent, they are ruled out. Such structural causation is ordinarily easily determined, and hence murmur due to it is readily eliminated from murmur of functional origin. Then, if murmur is definitely located at the left base, the chances of its being other than functional are very remote. And the positive and relative frequency of murmur at the left base has been exhibited to us. We have seen how, in our experiments, murmur was produced by active exercise, in nearly one-third of the cases; and that in thirty of these thirty-three cases, the murmur presented alone or with accentuation at the left base, and in one case only was the murmur accentuated at the right base. Also, we have seen how, in a large proportion of persons suffering under acute febrile movement, murmur was developed; and that, in them, it manifested usually at the pulmonary area alone, occasionally with accentuation here, and exceptionally with equal intensity at this and the aortic area, but in no instance at the aortic alone. Thus experience shows the pre-eminent frequency, both positive and relative, of systolic left basic murmur.

The fewer instances where systolic murmur is heard over the base without accentuation, at either the right or left area, may be organic or inorganic; and in these the diagnosis must be made independent of the distinctive aid derived from the position of the murmur as related to the right or left base. These are of the cases whose solution will require light from the many and various sources at our command. Happily the light may be sufficient.

Thus, we conclude the diagnosis between inorganic and organic cardiac murmurs is within our power, if we do but appreciate rightly interpret, and improve the resources which science and experience place within our reach.

Art. II.—Of a late Epidemic of Child-bed Fever; together with an Inquiry into the Connection, said to exist, between Puerperal Fever and Erysipelas.

By THOMAS C. MINOR, M. D., Cincinnati, Ohio.

[*Continued.*]

*Study of the Table.**—Out of a total population of 1,321,011 souls, the mortality from erysipelas, in the State of Kentucky (1870), was 93. As regards sex, 46 were males and 47 females. Of these, 90 were native born (88 whites and 2 colored), and 3 were foreign born (Germans). Of the decedents from puerperal fever (83 in number), 81 were native born (62 whites, 19 colored), and 2 were foreign born (one being a German and the other an Italian). The season of greatest mortality from erysipelas was spring (27). The season of greatest mortality from puerperal fever was spring (31). The month of greatest mortality from erysipelas was August (13). The month of greatest mortality from puerperal fever was April (13).

Reflections.—Kentucky has a colored population of 222,210 (108,304 males and 113,906 females), from whence it is seen that the colored population form about one-sixth the aggregate, and that, while erysipelas was very rare among the negro population, puerperal fever seemed to be more fatal than among the whites—that is, of course, in proportion to population. Ohio, with twice the population of Kentucky, had more deaths from erysipelas and less deaths from puerperal fever, in proportion, than did the latter-named state.

TENNESSEE.—Lying between the latitudes 35° and 36° 30′ north, and extending from 82° to 90° longitude west of Greenwich, is the State of Tennessee. A hypsometric sketch of the state shows that the western half varies from 400 to 800 feet above the sea-level; while, in the eastern portion of the state, it gradually rises from 800 to 2,000 feet, and even more, in the mountainous portion of the state, near the North Carolina state-line.

According to Blodgett, the mean monthly temperature at Knoxville (latitude 35° 56′, longitude 83° 58′, altitude 960 feet above the sea-level), in far Eastern Tennessee, reads as follows: January, 30.5°; February, 42.8°; March, 52.4°; April, 50.4°; May, 64.7°; June, 68.5°; July, 74.1°; August, 69.9°; September, 66.5°; October,

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* One death from puerperal fever is marked "month unknown," in the census tables. This one death was credited to the month of April.

59.6°; November, 44.1°; December, 44.5°. At Memphis, in the southwestern corner of the state (latitude 35° 08′, longitude 88°, altitude 400 feet above the sea-level), as follows: January, 41.7°; February, 45.9°; March, 55.3°; April, 59°; May, 68.9°; June, 75.8°; July, 79.9°; August, 78.5°; September, 72.5°; October, 58.4°; November, 53.3°; December, 40.2°. A quarterly and annual statement would then read about as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Knoxville	55.8°	70.8°	56.7°	39.3°	55.7°
Memphis	61.1	78.1	61.4	42.6	60.8

The fall of rain and melted snow in Memphis, at the different seasons, is as follows: Spring, 11 inches; summer, 7.80; autumn, 7.90; winter, 15.00—giving a total average annual rain-fall of 41.80 English inches.

Epidemic erysipelas has visited the state. According to Drake, it prevailed in Memphis in 1843–44, and also in Columbia in the latter year. Dr. W. L. Sutton,* writing in 1853, says that, "In the vicinity of Georgetown (Ky.), erysipelas has not been epidemic for at least twenty years." A Memphis health report for 1853, embodied in Dr. Sutton's paper, shows a few deaths in that city from erysipelas and puerperal fever, but no epidemics.

Study of the Table.—Out of a total population of 1,258,520 persons in Tennessee (1870), there were 85 deaths from erysipelas. As regards sex, 53 of the decedents were males and 32 were females. Of these, again, 83 were native born (77 whites and 6 colored), and 2 were foreign born (one being English and the other Irish). During the same period, 82 women died of puerperal fever. Of these, all were native born (65 whites and 17 colored). The season of greatest mortality from erysipelas was winter (24). The season of greatest mortality from puerperal fever was spring (31). The month of greatest mortality from erysipelas was August (10). The month of greatest mortality from puerperal fever was May (13).

Reflections.—Tennessee has a colored population of 322,331 (156,800 males and 165,531 females), which is about one-fourth the aggregate. From this, it will be seen that the whites suffered more from erysipelas than the blacks; and the mortality from puerperal fever was about the same among the whites as the colored, in proportion to population. It will be also noticed, that the diseases were not associated at any corresponding period; that is, judging from the periods of maximum mortality. The death-rate from erysipelas was about the same as in Kentucky; the death-rate from puerperal fever slightly more, in proportion to population.

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* Report on the Epidemics of Kentucky and Tennessee. Transactions of the American Medical Association, Vol. VII, 1854, p. 85 et seq.

We now turn to West Virginia.

WEST VIRGINIA.—Lying between 37° and 40° of north latitude, for the most part, and extending from 78° to about 82° 30′ longitude west of Greenwich, is the State of West Virginia.* A hypsometric sketch of the state shows that most of it has an elevation above the sea-level of from 800 to 2,000 feet. In the eastern portion of the state is the mountainous country. Says Dr. E. A. Hildreth,† West Virginia's most distinguished medical writer, in speaking of the Ohio Valley district of the state: "The natural features of this section are a system of billowy hills and winding valleys. There is a gradual diminution in the height of the hills, from the northern to the southern part, as also a like declension from east to west. The altitude of this section would fairly represent the *mean level of the state*, which would be between 900 and 1,000 feet above the level of the sea. The following measurements will exhibit the configuration of this district: The height above tide-water, at the Pennsylvania line, is 675 feet; at Wheeling, 640 feet; at Parkersburg, 625 feet; at Point Pleasant. 560; at mouth of Big Sandy (state line), 537 feet; at Charlestown (Kanawha), 600 feet; at Grafton (Tygart's Valley), 1,000 feet. Hence the average elevation of this district is very nearly 700 feet. Average difference between the Ohio Valley and the highest table-lands of the mountain district, 1,725 feet." In an abstract of the deaths of West Virginia, for 1868 and 1869, published with Dr. Hildreth's paper, we see that quite a number of deaths occurred during those years from erysipelas, from whence we deduce that the disease is not uncommon in that state.

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* It must be understood that the boundaries given are not exactly accurate regarding any of the states heretofore enumerated. The latitude and longitude which includes the bulk of territory is all that is necessary to roughly calculate the astronomical climate of each state.

† Second Report of the Climatology and Epidemic Diseases of West Virginia. By E. A. Hildreth, M. D., Wheeling, W. Va. Transactions of the American Medical Association, Vol. XXIII, 1872, p. 247.

At Wheeling (latitude 40° 07′, longitude 80° 42′, altitude 640 feet above the sea-level), the mean monthly temperature, according to Hildreth, reads as follows: January, 34.44°; February, 34.26°; March, 45.76°; April, 49.89°; May, 62.29°; June, 71.32°; July, 76.20°; August, 73.66°; September, 64.38°; October, 52.08°; November, 41.41°; December, 31.50°—giving a mean annual of 52.52°. The mean temperature of the different seasons of the year is about as follows: Spring, 51°; summer, 71.54°; autumn, 52.72°; winter, 32.07°. At Marietta, Ohio, the mean rain-fall, at the various seasons, according to the records of Dr. S. P. Hildreth and Dr. G. O. Hildreth, reads as follows: Spring, 10.10; summer, 13.22; autumn, 8.41; winter, 8.78—giving an annual mean of 40.52 inches. Marietta is on the western boundary-line of West Virginia.

Study of the Table.—Out of a total population of 442,014 persons, 37 died from erysipelas in West Virginia (1870). As regards sex, 18 were males and 19 females; 35 were native-born whites, and 2 were foreign born (one being a German, the other a native of Great Britain). The deaths from puerperal fever numbered 13. Of these, 12 were native born (11 whites and 1 colored), while 1 was a native of Ireland. The season of greatest mortality from erysipelas was summer (11). The season of greatest mortality from puerperal fever was winter (5). The month of greatest mortality from erysipelas was December (6). The month of greatest mortality from puerperal fever was February (4).

Reflections.—West Virginia has a colored population of 17,980 (8,972 males and 9,008 females). It will be noticed that no colored person died of erysipelas and only one from puerperal fever. It will be noticed, also, that both diseases prevailed to about the same degree at all the seasons of the year.

We now turn our faces to the far north.

MICHIGAN.—Of a most grotesque and irregular shape, this state extends from the neighborhood of 41° 40′ to 47° north latitude, and is encompassed by the imaginary boundary-lines of 82° and 87° longitude west of Greenwich—the northwestern portion of the state, however, extends as far west as 90°. We shall include this portion of Michigan when we give the astronomical climatic boundaries of Wisconsin. Michigan separates three great interior fresh-water oceans of the continent—*i. e.* Lakes Huron, Michigan, and Superior; and the state, for this reason, has an immense coast-line. A hypsometric sketch of the state shows that the land rises from its coast-line on all sides, and the central portion of the state is the highest. This broad coast-belt has an elevation of from 400 to 800 feet above the sea-level, in the southern part of the state. In central southern Michigan the altitude increases from 800 to 1,600 feet. In northwestern Michigan, in the iron and copper regions of Marquette and Ontonagon, the land is still higher.

At Detroit, one of the oldest towns in the New World (it having been settled in 1683, by the French), the mean monthly temperature, according to Blodgett, reads as follows (latitude 42° 20′, longitude 82° 58′, altitude 580 feet above tide-water): January, 27°; February, 26.6°; March, 35.4°; April, 46.3°; May, 56°; June, 65.6°; July, 69.7°; August, 67.5°; September, 60°; October, 47.7°; November, 38.2°; December, 26.9°. At Copper Harbor, in the extreme north (latitude 47° 30′, longitude 88°, altitude 620 feet above the sea): January, 23.4°; February, 21.4°; March, 28.9°; April, 38.1°; May, 48.4°; June, 56.7°; July, 63.5°; August, 62.2°; September, 55.8°; October, 42.9°; November, 30.2°; December, 20.5°. The temperature, by seasons, is as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Detroit...............	45.9°	67.6°	48.7°	26.8°	47.2°
Copper Harbor...	38.5	60.8	43	21.8	41

The variation, at these points, is very apparent.

The fall of rain and melted snow in various seasons, at selected stations, is as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Detroit...............	8.51	9.29	7.41	4.86	30.07
Fort Mackinac......	4.67	8.88	7.01	3.31	23.87

Drake speaks of an epidemic of erysipelas, which occurred in Livingston county, in 1847. From a "Schedule of Diseases prevalent in Detroit, from January, 1852, to December 31, 1853,"* in speaking of the month of January, 1852, Dr. Pitcher remarks: "I saw no case of puerperal fever this month, in which there were not indications of its approach before, or at the time of, parturition. Careful observation, I feel confident, will establish the fact that the disease is an epidemic—sometimes the cause of premature labor, and at others, excited into action by the incidents of childbirth." Speaking of the months of February and March—for it seems erysipelas and puerperal fever were prevalent in those months, as also in January and April—Dr. Pitcher says: "I have called a case an erysipelas or a laryngitis, when others might, and perhaps with more propriety, have called them both typhoid fever, of which the erysipelas and laryngitis were the local manifestations." And afterward, speaking of April: "Toward the close of this month there were a few hot days, which changed the local affections, but not the general character of disease. The cases of puerperal fever seen this month were all preceded by a chill at the commencement of labor, and attended by after-pains of uncommon severity." Judging from these remarks, we are led to infer that erysipelas and puerperal fever have prevailed together as epidemics in Michigan. Also, in a report made by Dr. S. D. Richardson, of Centerville, Southern Michigan, we learn that, "Erysipelas has prevailed as an epidemic for the last two years (1851 and 1852); usually affecting the head and face. No fatal cases occurred." And, "*Puerperal peritonitis* prevailed contemporaneously with erysipelas in this region. In some cases the erysipelas attacked the labia and vagina, and was soon followed by puerperal peritonitis. It was undoubtedly transmitted by the physician in some instances. The disease was of the adynamic form, and it was generally fatal, not more than one in four recovering," etc., etc.

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* Report on the Epidemics of Michigan. By Dr. Z. Pitcher. Transactions of the American Medical Association, Vol. VII, 1854, p. 390 et seq.

Study of the Table.—Out of a total population of 1,184,059 persons in Michigan (1870), the decedents from erysipelas numbered 106. As regards sex, 58 were males and 48 females. Of these, 88 were native born (87 whites and 1 *Indian*), and 18 were foreign born. During the same time, 36 women died from puerperal fever. Of these, 30 were native born (29 whites and 1 colored), and 6 were foreign born. The season of greatest mortality from erysipelas was spring (33). The seasons of greatest mortality from puerperal fever were spring and winter (10 each). The month of greatest mortality from erysipelas was December (18). The month of greatest mortality from puerperal fever was January (5).

Reflections.—Michigan has a foreign-born population of 268,010; or, roughly calculating, about one-fifth the total population, from whence it will be seen that the native and foreign-born suffered about equally from both diseases. It will be noticed that the diseases appear to be most prevalent at the same seasons. The increase of erysipelas and the decrease in puerperal fever, as compared with states of about the same population farther south, Kentucky for instance, will be noticed.

Next in order will be the State of Wisconsin.

WISCONSIN.—Lying between 42° 30′ and 47° north latitude, and extending from 87° to about 92° longitude west of Greenwich, is the State of Wisconsin. A hypsometric sketch of the state shows most of it to have an elevation above the sea-level, varying from 600 to 2,000 feet.

At Green Bay (latitude 44° 30′, longitude 88° 05′, altitude 620 feet above tide-water), according to Blodgett, the mean monthly temperature reads as follows: January, 18.9°; February, 20°; March, 31.3°; April, 43.4°; May, 55.8°; June, 66.2°; July, 71.5°; August, 67.9°; September, 57.2°; October, 46.5°; November, 34.3°; December, 20.8°. At Milwaukee (latitude 43° 04′, longitude 87° 57′, altitude 600 feet above the sea-level): January, 25.2°; February, 29.4°; March, 34.8°; April, 40.7°; May, 51.3°; June, 64 8°; July, 69.8°; August, 67.5°; September, 61.2°; October, 50.7°; November, 38.5°; December, 23.5°—thus giving a mean quarterly and annual temperature as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Green Bay..........	43.5°	68.5°	46°	19.9°	44.5°
Milwaukee.........	42.3	67.3	50.1	26	46.4

The fall of rain and melted snow, at the different seasons, in Milwaukee, is as follows: Spring, 6.60 inches; summer, 9.70; autumn, 6.80; winter, 4.20—giving a mean annual of 27.20 inches.

Drake mentions an epidemic of erysipelas occurring at Milwaukee in 1843–44.

Study of the Table.—Out of a total population of 1,054,670 persons in the State of Wisconsin (1870), the decedents from erysipelas numbered 47. As regards sex, 20 were males and 47 females. Of these, 35 were native-born whites and 12 were foreigners. During the same period, 31 women died from puerperal fever. Of these, 5 were native born and 26 were foreign born. The foreign-born decedents were mostly Germans or Norwegians; 24 out of the 26 came from the northern part of Europe. The season of greatest mortality from erysipelas was winter (16). The season of greatest mortality from puerperal fever was winter (10). The month of greatest mortality from erysipelas was February (10).

The months of greatest mortality from puerperal fever was December and July (*i. e.* 5 each).

Reflections.—It will be noticed that there is much less erysipelas in Wisconsin, in proportion to population, than there is in Michigan. Wisconsin has a foreign-born population of 364,499 persons. From this statement it will be seen that at least one-third of the population is foreign born, and therefore more deaths, in proportion to population, from erysipelas occurred among the native than the foreign born; while, on the contrary, more foreign-born women died from puerperal fever than did those who were native born. No epidemic of either disease appears to have prevailed.

INDIANA.—Lying, for the most part, between 38° and 42° north latitude, and extending from about 84° 45′ to 87° 30′, longitude west from Greenwich, is the State of Indiana. A hypsometric sketch of the state shows it to have an elevation, for the most part, of from 400 to 800 feet above the sea-level. In the eastern portion of the state, near the Ohio state line, the land is still higher at points.

At New Harmony, according to Blodgett (latitude 38° 11′, longitude 86° 50′, altitude 400 feet above tide-water), the mean monthly temperature reads as follows: January, 34.1°; February, 41.5°; March, 52.5°; April, 56°; May, 67.6°; June, 76.4°; July, 78.8°; August, 75.5°; September, 65.6°; October, 55.7°; November, 43.3°; December, 37.3°. At Milton (latitude 39° 47′, longitude 85° 02′, altitude 800 feet above the level of the sea): January, 29.5°; February, 28.8°; March, 38.2°; April, 52.8°; May, 62.7°; June, 69.2°; July, 77.5°; August, 73.6°; September, 69.5°; October, 53.6°; November, 41°; December, 30.8°. The mean temperature at the quarters and annually would read as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
New Harmony.....	58.7°	76.9°	54.9°	37.6°	56.9°
Milton	51.2	78.4	54.7	29.7	52.2

The fall of rain and melted snow, at the various seasons, at New Harmony, is as follows: Spring, 10.51 inches; summer, 12.79; autumn, 7.26; winter, 12.29—giving a mean annual of 42.85 English inches. Drake mentions an epidemic of erysipelas occurring in Michigan City, Indiana, in 1843–44.

Study of the Table.—Out of a total population of 1,680,637 persons, the mortality from the single cause of erysipelas, in the

State of Indiana (1870), was 183. As regards sex, 88 were males and 95 females. Of these, 173 were native born (172 whites and 1 colored), and 10 were foreign born, 8 of whom were Germans. During the same time 87 women died of puerperal fever, 81 of whom were native-born whites, and the other 6 were foreigners. The season of greatest mortality from erysipelas was winter (54). The season of greatest mortality from puerperal fever was spring (33). The month of greatest mortality from erysipelas was February (24). The month of greatest mortality from puerperal fever was March (16).

Reflections.—Indiana has a foreign-born population of 141,427 persons; from thence it is seen that the foreign born suffered less from both diseases, in proportion to population, than the native born. It will be noticed that the season and month of the greatest mortality from erysipelas preceded the season and month of greatest mortality from puerperal fever. It will be noticed that the mortality, from both diseases in this state, is quite large.

We now turn to the great State of Illinois.

ILLINOIS.—Lying between 37° and 42° 30′ north latitude, and extending from about 87° 30′ to about 91° 30′ longitude west of Greenwich, is the State of Illinois. A hypsometric sketch of the state shows it to have an elevation varying from 400 to 800 feet above the level of the sea.

At Athens (latitude 39° 52′, longitude 89° 56′, altitude 650 feet above tide-water), the mean monthly temperature, according to Blodgett, reads as follows: January, 25.7°; February, 28.5°; March, 39.6°; April, 57.9°; May, 65.6°; June, 71.8°; July, 79.4°; August, 77.4°; September, 73°; October, 56°; November, 42.5°; December, 29.8°. At Chicago (latitude 41° 52′, longitude 87° 35′, altitude 591 feet above the sea-level): January, 23.6°; February, 24.7°; March, 32.3°; April, 46.1°; May, 56.3°; June, 62.7°; July, 70.8°; August, 68.5°; September, 60.1°; October, 48.5°; November, 37.9°; December, 29.3°. Arranged by seasons and annually, they read as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Chicago..	44.9°	67.3°	48.8°	25.9°	46.7°
Athens	54.4	76.2	57.2	28	53.9

The mean fall of rain and melted snow, at Athens, reads as follows: Spring, 12.20 inches; summer, 13.30; autumn, 9.20; winter, 7.10—giving a mean annual of 41.80 inches. Dr. Drake mentions an epidemic of erysipelas which occurred at Bloomington, Illinois, in the years 1843–44.

Study of the Table.—Out of a total population of 2,539,891 persons in Illinois (1870), the number of decedents from erysipelas was 264. As regards sex, 139 were males and 125 females. Of these, the nativity of 1 was unknown, 235 were native born whites, and 28 were foreigners. During the same period, 149 women died from puerperal fever. Of these, 86 were native born (83 whites and 3 colored), while 63 were foreign born. The foreign born, from both diseases, might be tabulated thus:

NATIVITY.	ERYSIPELAS.	PUERPERAL FEVER.
Germany	11	29
Sweden and Norway	1	7
Ireland	7	17
England and Wales	5	3
All others	4	7
Total	28	63

The season of greatest mortality from erysipelas was spring (84). The season of greatest mortality from puerperal fever was spring (57). The months of greatest mortality from erysipelas were March and April (31 each). The month* of greatest mortality from puerperal fever was March (25).

Reflections.—Both diseases seem to have been most prevalent at about the same period. Illinois had a foreign-born population of 515,198 persons in 1870; also a colored population of 28,762. It will be noticed, that about one-fifth of the population was foreign born; and, from thence, we see that the foreign-born population suffered much less from erysipelas than the native-born, while, on the contrary, the mortality from puerperal fever among the foreign-born was greater, in proportion to population, than among the native-born.

We have before seen this state of affairs existing, when we were investigating the Middle and New England States. As compared with Ohio, there seems to be about the same amount of erysipelas in Illinois; while, at the same time, there appears to be more puerperal fever, in proportion to population, in the latter-named state.

We shall now turn to the consideration of Missouri.

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* In Illinois, one death occurred from puerperal fever in a month unknown. This, in order to balance the table with the figures in the census, was credited to the month of March. (25+1=26).

MISSOURI.—Lying, for the most part, between 36° 30′ and 40° 30′ north latitude, and extending from about 90° to 95° longitude west of Greenwich, is the State of Missouri. A hypsometric sketch of the state shows that the land rises from the eastern and western borders, where it varies from 400 to 800 feet above the sea-level. In the central portion of the state the land is still higher, running from 800 to 2,000 feet above tide-water.

At St. Louis (latitude 38° 37′, longitude 90° 15′, altitude 462 feet above the level of the sea), the mean monthly temperature, according to Engleman,* reads: January, 36.2°; February, 38.8°; March, 48.3°; April, 52.8°; May, 69°; June, 72.9°; July, 78°; August, 75.6°; September, 72.5°; October, 56.1°; November, 41.1°; December, 30.5°—giving a mean spring temperature of 56.7°; summer, 75.5°; autumn, 56.6°; winter, 35.1°; and a mean annual temperature of 55.9°. The fall of rain and melted snow, at St. Louis, at different seasons, reads as follows: Spring, 12.30 inches; summer, 14.14; autumn, 8.94; winter, 6.94—giving an annual mean of 42.32 inches.

From a report presented to the American Medical Association, in 1855,† we glean the following information regarding erysipelas and puerperal fever, as they prevail in Missouri. Dr. Wilcox, of Boone county, writing in 1852, says, in speaking of the diseases of that county: "Erysipelas has also prevailed, both as an endemic and an epidemic. In its endemic form, the symptoms were mild, but well marked. As an epidemic, it prevailed here, in the year 1847, in its most malignant form. . . . It made its appearance again in 1851. . . . Then, again, it made its appearance in 1852." Dr. Wilcox also refers to an epidemic of erysipelas occurring in Howard county in 1852. Dr. H. Ready, of Westport, Jackson county, speaks thus of the epidemic which occurred in his neighborhood in the winter of 1851–52: "This disease, under consideration, is known as epidemic erysipelatous fever, or by common title, black tongue." Dr. Mangles, of Fayette, speaks of erysipelas in Howard county, thus: "Epidemic erysipelas made its appearance in Howard county, in January of this year (1852), prevailing chiefly in a district of about ten miles in width, by eighteen or twenty in length, with scattered cases in other sections of the country." Dr. R. T. P. Ridley, of Platte county (Weston), speaks of the epidemic occurring there in January and February, 1852: "Cases of erysipelas occurred in Platte county, Missouri, in which there was marked evidence of the propagation of the disease by contagion." Dr. Ridley remarked "the connection of puerperal peritonitis with erysipelas." Dr. C. Q. Chandler, of Cooper county, says: "Erysipelas prevailed in the southwest section of this county, and in the adjoining county of Moniteau, during the winter of 1851–2. This disease, together with puerperal fever, raged in a most malignant and fatal form." Other authorities might be quoted, regarding the prevalence of the two diseases in Missouri.

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* Transactions of the American Medical Association, Vol. VIII, 1855, p. 294.

† Report on the Diseases of Missouri and Iowa. By Thomas Reyburn, M. D., St. Louis.

Study of the Table.—Out of a total population of 1,721,295 persons in Missouri (1870), the mortality from the single cause of erysipelas was 188. As regards sex, 99 were males and 89 were females Of these, the nativity of 2 was unknown; 163 were native born (161 whites and 2 colored), while 23 were foreign born (11 Germany, 9 Ireland, and 3 Great Britain). During the same period, 161 women died of puerperal fever. Of these, 129 were native born (119 whites and 10 colored), while 32 were foreign born (18 Germany, 7 Ireland, 1 England, 2 France, all other countries 4). The season of greatest mortality from erysipelas was spring (65). The season of greatest mortality from puerperal fever was spring (44). The months of greatest mortality from erysipelas were March and September (23 each). The months of greatest mortality from puerperal fever were August and February (19 each).

Reflections.—Missouri has a foreign-born population of 222,174, and a colored population of 118,071. On a rough calculation, then, about one-eighth of the population is foreign born, and about one-fifteenth is colored; from whence we see that, in proportion to population, the foreign-born suffered to about the same degree, from erysipelas, as the native-born, while, at the same time, they suffered much more from puerperal fever than the latter. The blacks suffered but slightly from erysipelas as compared with the whites, but suffered from puerperal fever to about the same degree as the latter. The mortality from erysipelas, in Missouri, is about the same as in Indiana, while the mortality from puerperal fever is much larger in the former State.

We now turn to Arkansas.

ARKANSAS.—Extending from 33° to about 36° 30′ north latitude, and stretching from 90° to 94° 30′ longitude west of Greenwich, is the State of Arkansas. According to Dr. George W. Lawrence:* "The elevated parts of the state commence at the undulations of the surface in the southwestern part, soon developing into foot-hills and mountains of the 'Marserne range,' and expanding into broad mountain tracts, as we course toward the north and east, until we meet the Ozark Mountains, which, commencing near Little Rock, extend north and westerly, beyond the limits of the state. They obtain an elevation of from 1,500 to 2,000 feet."

At Fort Smith (latitude 35° 23′, longitude 94° 29′, altitude 460 feet above tide-water), the mean monthly temperature reads as follows: January, 40.2°; February, 43.9°; March, 51.6°; April, 62.4°; May, 69.9°; June, 75.5°; July, 79.2°; August, 78.1°; September, 72.2°; October, 59.6°; November, 48.3°; December, 39.3°. (Blodgett, quoted by Lawrence.) At Little Rock, the mean monthly temperature reads as follows: January, 43.06°; February, 50.72°; March, 56.88°; April, 64.65°; May, 71.04°; June, 81.26°; July, 82.14°; August, 85.89°; September, 72.86°; October, 63.10°; November, 47.01°; December, 41.31°. (Lawrence.) This would give a mean quarterly temperature, at these two stations, as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Fort Smith..........	61.3°	77.6°	60.1°	41.1°	60°
Little Rock.........	72	80	50	50	63

The fall of rain in Little Rock, in 1871, was 43.80 inches (Lawrence). At Fort Smith the rain-fall, at the different seasons and annually, reads, acording to Blodgett, as follows:

SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
12.48 inches.	13.03 inches.	9.93 inches.	6.66 inches.	42.10 inches.

Lawrence, speaking of the zymotic diseases in the State of Arkansas, says: "Erysipelas of idiopathic type is unknown;" and also, that, "Uterine diseases and puerperal complications are very rare."

Study of the Table.—Notwithstanding Lawrence's assertion regarding erysipelas and puerperal complications, we see that out of a total population of 484,471 persons residing in the State of Arkansas, in the year 1870, that 51 died of erysipelas. As regards sex, 26 were males and 25 were females. Of these, 50 were native born (44 whites and 6 colored), while 1 was a foreigner (German). During the same period, 56 women died from puerperal fever, all of the decedents being native born (52 whites and 4 colored). The season of greatest mortality from erysipelas was autumn (17). The season of greatest mortality from puerperal fever was winter (19). The month of greatest mortality from erysipelas was September (7). The months of greatest mortality from puerperal fever were September and February (7 each).

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* Report of the Committee on Climatology, etc., of Arkansas. By George W. Lawrence, M. D., Hot Springs. Transactions of the American Medical Association, Vol. XXIII, 1872, p. 400.

Reflections.—Arkansas has a colored population of 122,169 (61,680 males and 60,489 females). This would be about one-fourth the total population; hence it will be noticed that the whites suffered much more from both diseases, in proportion to population, than did the blacks. Arkansas seems to suffer as much from erysipelas and puerperal fever as any other Western state.

We now turn to Kansas.

KANSAS.—Lying between 37° and 40° north latitude, and extending from about 94° 30′ to 102° longitude west of Greenwich, is the State of Kansas. A hypsometric sketch of the state shows the eastern and central portions to have an elevation varying from 800 to 2,000 feet, while the western portion has an altitude of between 3,000 and 4,000 feet above the sea-level at some points.

At Fort Leavenworth (latitude 39° 21′, longitude 94° 44′, altitude 896 feet above the sea-level), the mean monthly temperature, according to Blodgett, reads as follows: January, 28°; February, 31.1°; March, 42.2°; April, 55.5°; May, 63.6°; June, 71.3°; July, 76.7°; August, 74.2°; September, 66.2°; October, 54.4°; November, 40.4°; December, 29.8°. At Fort Riley (latitude 39° 03′, longitude 96° 25′, altitude 1,300 feet above the sea-level): January, 27.1°; February, 33.7°; March, 42.7°; April, 60.2°; May, 66.5°; June, 73.2°; July, 83.7°; August, 84.7°; September, 72.3°; October, 64.6°; November, 43.6°; December, 36.4°. The mean quarterly then reads as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Fort Leavenworth.	53.8°	74.1°	53.7°	29.6°	52.8°
Fort Riley............	56.5	77.2	60.2	32.4	56.6

At Fort Atkinson (latitude 37° 47′, and at an altitude of 2,330 feet above the level of the sea, the fall of rain and melted snow, at different seasons, is as follows: Spring, 13.68; summer, 7.15; autumn, 12.05; winter, 2.13—giving an annual fall of 35.01 inches.

I have no information relative to the former epidemics of Kansas.

Study of the Table.—Out of a total population of 364,399 persons, residing in Kansas in 1870, there were 46 died of erysipelas. As regards sex, the decedents were evenly divided, *i. e.* 23 males and 23 females. Of these, 40 were native-born whites and 6 were foreigners. During the same year, 37 women died of puerperal fever. Of these, 35 were native born (33 white, 1 colored, and 1 *Indian woman*), and 2 were foreign born. The season of greatest mortality from erysipelas was spring (15). The season of greatest mortality from puerperal fever was spring (15). The month of greatest mortality from erysipelas was October (9). The month of greatest mortality from puerperal fever was April (6).

Reflections.—No special connection seems to have existed between the two diseases. The mortality from both diseases seems to be about the same in Kansas, in proportion to population, as in other Western states. Kansas has a foreign-born population of 48,392 persons; from whence it will be seen that, in proportion to population, fewer foreign-born than native-born women died of puerperal fever. It is also noticeable, as a matter of momentary interest, that one Indian *squaw* died of puerperal fever.

We now turn our attention to Minnesota.

MINNESOTA.—Extending from 44° 30′ to 49° north latitude, and from 91° to 97° longitude west from Greenwich, is the State of Minnesota. A hypsometric sketch of the state shows it to have an elevation ranging from 800 to 2,000 feet above tide-water.

At Fort Snelling (latitude 44° 53′, longitude 93° 10′, altitude 820 feet above the sea-level), the mean monthly temperature, according to Blodgett, reads as follows: January, 13.7°; February, 17.6°; March, 31.4°; April, 46.3°; May, 59°; June, 68.4°; July, 73.4°; August, 70.1°; September, 58.9°; October, 47.1°; November, 31.7°; December, 16.9°. At Fort Ripley (latitude 46° 19′, longitude 94° 19′, altitude 1,130 feet above the sea-level), January, 7.9°; February, 11.9°; March, 24.4°; April, 40.7°; May, 52.9°; June, 62.8°; July, 67.3°; August, 64 7°; September, 56.7°; October, 44°; November, 28.1°; December, 10.3°—giving a mean quarterly and annual temperature as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Fort Snelling......	45.6°	70.6°	45.9°	16.1°	44.6°
Fort Ripley........	39.3	64.9	42.9	10	39.3

The quarterly fall of rain and melted snow, at the two same military posts, reads as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Fort Snelling......	6.61	10.92	5.98	1.92	25.43
Fort Ripley.........	6.31	12.64	8.19	2.02	29.16

I have no information relative to the epidemics of Minnesota.

Study of the Table.—Out of a total population of 439,706 persons residing in Minnesota, in the census year 1870, 14 died of erysipelas. As regards sex, 9 of these decedents were males and 5 were females. Of these, again, 13 were native-born whites, and 1 was a Swede. During the same period, 13 women died of puerperal fever. Of these, 5 were native born (4 whites and 1 Indian), while 8 were foreign born. The season of greatest mortality from erysipelas was summer (5). The season of greatest mortality from puerperal fever was autumn (4). There seems to have been no particular month of greatest mortality from either disease.

Reflections.—Comparing Minnesota with Maine, New Hampshire, and other New England states, lying in about the same latitude, we notice that, in proportion to population, Minnesota suffers less from erysipelas and more from puerperal fever. We also see that another Indian woman died of puerperal fever. Minnesota has a foreign-born population of 160,697 persons; from whence it will be seen that, in proportion to population, fewer foreign-born than native-born died of erysipelas, while the reverse was the case regarding puerperal fever. No epidemic of either disease seems to have prevailed; and, at any rate, it is evident that no connection exists between the cases of erysipelas and those of puerperal fever. It will be observed that a low mean annual temperature is the rule in Minnesota. The temperature, at the period of the greatest mortality from erysipelas, was from 70° to 65° F.; at the period of greatest mortality from puerperal fever, it ranged from 40° to 45° F.

[TO BE CONTINUED.]

Medical Societies.

AMERICAN MEDICAL ASSOCIATION.

We greatly regret that our pages are so occupied that we can give but a brief abstract of the proceedings of the American Medical Association—especially as the association took very important action on a number of subjects, notable among which was the change of representation. The meeting was unusually large, and the proceedings of interest.

Dr. Wm. Brodie, of Detroit, delivered the address of welcome on behalf of the profession of Detroit and the State of Michigan.

The inaugural address of the president of the association, Dr. Toner, was an able exposition of the past and present condition of the profession, work, and suggestions as to what should be done by the association.

During the session, an invitation from Houston, Texas, was received, requesting the association to hold its next annual meeting in that place.

Dr. Bulkley, of New York, read a paper, before the Section on Practice of Medicine, Materia Medica and Physiology, on "The Management of Eczema," in which he treated at length the various forms of local and constitutional cutaneous diseases. Among the remedies applied by him in his practice, with varied failures and successes, were arsenic, glycerine, cod-liver oil, tar ointment, mutton suet and lard, carbolic acid, and a solution of tar water, and caustic potash. The paper was recommended for publication.

Dr. Farnsworth, of Iowa, read a paper on the "Therapeutic Uses of Ammonia."

Section Two—Obstetrics, and Diseases of Women and Children.—Dr. Beck, of Fort Wayne, Indiana, read a paper on the "Theory of Generation," which elicited discussion by Drs. J. P. White, of Buffalo; Byford, of Chicago; Sims and Pullen, of New York.

Section Three—Surgery and Anatomy.—Dr. A. Dunlap, of Springfield, Ohio, read a paper before this section on "Enchondroma over the Sternum." Dr. E. M. Moore, of Rochester, N. Y., read a paper on "Epiphyseal Fracture of the Superior Extremity of the

Humerus," illustrated by a number of cases, giving the following method of reduction of such fractures:

"Reduction is effected by carrying the arm forward and upward to the perpendicular line. Retention is effected by moderate extension while bringing the arm down by the side, maintaining this slight extension until dressings for the purpose of continuing it are applied. Swinburne's method fulfills the indications easily and perfectly. Even if not restored, the arm soon becomes useful, and nature gradually rounds off the prominence of the diaphysis, and elongates the capsule at the lower border, allowing the motion upward to improve."

The paper caused considerable debate.

Section Four—Medical Jurisprudence.—Very little business came before this section.

Section Five—Public Hygiene.—An unusual number of valuable papers were read before this section—among others a report on "A National Sanitary Bureau," by Dr. Henry J. Bowditch, of Massachusetts, who states that, in his opinion, the time had not yet come for the formation of a National Council of Health. On the contrary, he believed that all efforts should be made toward the establishment of State boards of health. And when these, in the course of time, had shown themselves a necessity, the other would naturally follow. A history and statement of what had been accomplished by the State Board of Health in Massachusetts was included in the paper.

Dr. Bell, chairman of the section, read the report of Dr. A. B. Stuart, of Minnesota, which advocates the establishment of a National Sanitary Bureau with auxiliary State organizations, under the control of officers, medical and non-medical, selected on account of their fitness for the position.

Dr. Bell maintained that the formation of a national bureau was impracticable until State boards were general and not exceptional.

Dr. Cochrane, of Alabama, coincided with the views of Dr. Bell.

Dr. Kedzie, of Michigan, moved the adoption of a resolution that the association petition Congress to establish a National Sanitary Bureau. By taking such action, they would most forward the establishing State Bureaus; and, by some illustrations with reference to the yellow-fever epidemic in the South last year, the doctor showed the very great effectiveness of health organizations.

The debate was continued at length by the various members of the section.

SECOND DAY'S PROCEEDINGS.

The following amendments to the plan of organization to be acted upon were read by Dr. Davis, of Illinois.

Strike out the second paragraph of Article II., and insert the following:

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by representation in their respective State Societies, and from the medical department of the army and navy of the United States."

Also, strike out the fourth paragraph of the same article, and insert:

"Each State, County, and District Medical Society, entitled to representation, shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number."

The medical staffs of the army and navy shall be entitled to four delegates each.

By Dr. Pineo, of Massachusetts:

Article II., second paragraph, after "army and navy," insert: "And the marine hospital service of the United States."

By-laws, section 6, after "the chiefs of the bureaus of the army and navy," insert: "And the supervising surgeon of the United States marine hospital service."

By Dr. E. L. Howard, of Maryland:

Article IV. Strike out second clause of first paragraph, and insert:

"They shall be nominated by the judicial council, and shall be elected by vote on a general ticket."

By Dr. A. S. Maxwell, of Iowa:

"*Resolved*, That in view of the many and important duties imposed upon the nominating committee, the medical society of each State and Territory that elects delegates, be requested, when selecting delegates, to nominate one member of each delegation, as their member of the nominating committee. And also designate the mode of filling vacancies."

By Dr. A. M. Pollock, of Pennsylvania:

Article VI., first paragraph, strike out the word *five* and insert *ten*.

By-laws, Article V., first paragraph, strike out *five* and insert *ten*.

Dr. Busey, of Washington, offered the addition of the following proviso to the first proposed amendment :

" Provided, however, that the number of delegates from any particular state, territory, county, city, or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the code of ethics of this association."

Which was accepted and adopted.

The report and resolution was then adopted by a large majority.

The second proposed amendment was laid on the table indefinitely.

The third, fourth, and fifth proposed amendments were tabled.

Annual address on "Practical Medicine," by Dr. N. S. Davis, president of the Section on Practical Medicine and Physiology, was a periscope of the subject treated, during the past year.

Dr. L. D. Gross delivered a lengthy address on the "Unity of Syphilis."

Dr. J. M. Kellar, of Kentucky, invited the association to hold its next meeting in Louisville.

A paper, on the "Mechanism of the Encephalic Circulation," by Dr. Reuben A. Vance, of New York, was read by Dr. W. M. Carpenter.

Dr. F. R. Buckham read a paper on "Uremia," which elicited discussion.

THIRD DAY'S PROCEEDINGS.

Dr. Bell, chairman of the Section on State Medicine, read an able address, taking as his subject, "*It is held in law that whoever accelerates death causes it.*" Taylor's Medical Jurisprudence, Amer. ed. 1861, p. 740.

Dr. G M. Beard, of New York, delivered an address before the Section on Surgery and Anatomy, on the "Uses of Electricity," from which he deduced the following conclusions :

1. That certain benign tumors, as goitres, cystic tumors, and naevi, can be made to diminish or disappear under electrolysis.

2. That fatty tumors and many enlarged glands usually do not much diminish under electrolysis, and sometimes they will not diminish at all.

3. That malignant tumors will not usually diminish, and rarely, if ever, disappear under electrolysis; but the pain connected with them can be treated most successfully, not only by electrolysis, but also by simple external electrization.

4. That malignant tumors, when sufficiently accessible and not too far advanced, may be treated by the method of *electrolizing the base or working up the base*, as I term it, and this method promises more permanent results than have been obtained by the usual treatment.

5. That certain diseases of the skin—herpes, eczema, and prurigo—may be treated by different methods of using electricity, with the highest success.

6. That diseases of the skin may be treated by local and *central* methods of using electricity; but some of the most brilliant results in the treatment of chronic eczema have been obtained by galvanizing the nerve centers, in the method of *central galvanization*, without making any application whatever to the diseased parts. The results of this method of treatment seem to show pretty conclusively that chronic eczema is, to a considerable extent, dependent on the central nervous system.

A long and rather exciting discussion took place in the Section on State Medicine, on the offering of the following resolutions, which were adopted, as follows, viz:

Resolved, That in view of the alarming prevalence and ill-effects of intemperance, with which none are so familiar as members of the medical profession, and which have called forth from eminent English physicians the voice of warning to the people of Great Britain concerning the use of alcoholic beverages, we, as members of the medical profession of the United States, unite in the declaration that we believe that alcohol should be classed with other powerful drugs; that when prescribed medicinally it should be done with conscientious caution and a sense of great responsibility.

Resolved, That we are of the opinion that the use of alcoholic liquors as a beverage is productive of a large amount of physical and mental disease; that it entails diseased appetites and enfeebled constitutions upon offspring, and that it is the cause of a large percentage of the crime and pauperism of our large cities and country.

Resolved, That we would welcome any change in public sentiment that would confine the use of intoxicating liquors to the uses of science, art, and medicine.

FOURTH DAY'S PROCEEDINGS.

Dr. Byford, on behalf of the Committee on Nominations, reported as follows:

The Committee on Nominations respectfully report that they suggest the following gentlemen for the various offices named:

President—Dr. W. K. Bowling, Tennessee.

Vice-Presidents—1. Dr. William Brodie, of Michigan; 2. Dr. J. J. Woodward, of United States Army; 3. Dr. H. W. Brown, of Texas; 4. Dr. H. D. Didama, of New York.

Treasurer—Dr. Caspar Wister, of Pennsylvania.

Librarian—Dr. William Lee, of District of Columbia.

Committee on Library—Dr. Johnson Elliott, of District of Columbia.

Assistant Secretary—Dr. William Walling, of Kentucky.

Committee of Arrangements—Drs. Edward Richardson, chairman; Lawrence Smith, Robert Gale, James Holland, Henry Bullitt, J. M. Keller, D. W. Yandell, Lewis Rogers, R. C. Hewitt, all of Louisville.

Committee on Prize Essays—Drs. J. A. Octerlooney, L. P. Yandell, J. D. Jackson, all of Kentucky; Theophilus Parvin, T. M. Stevens, both of Indiana.

Committee on Publication—Drs. F. G. Smith, William B. Atkinson, D. Murray Cheston, Caspar Wister, Alfred Stille, all of Pennsylvania; William Lee, of District of Columbia; H. F. Askew, of Delaware.

Next Place of Meeting—Louisville, Kentucky.

Time of Meeting—First Tuesday in May, 1875.

The committee also report the following nominations for chairmen and secretaries of sections for 1875:

1. Practice of Medicine, Materia Medica, and Physiology—Dr. Austin Flint, of New York, chairman, and Dr. K. Bartlett, of Wisconsin, secretary.

2. Obstetrics and Diseases of Women and Children—Dr. W. H. Byford, of Illinois, chairman, and Dr. S. C. Busey, of District of Columbia, secretary.

3. Surgery and Anatomy—Dr. E. M. Moore, of Rochester, N. Y., chairman, and Dr. T. S. Latimer, of Maryland, secretary.

4. Medical Jurisprudence, Chemistry, and Psychology—Dr. Jerome Cochrane, of Alabama, chairman, and Dr. G. A. Moses, of Missouri, secretary.

5. State Medicine and Public Hygiene—Dr. H. L. Bowditch, of Massachusetts, chairman; Dr. H. M. Baker, of Michigan, secretary.

Members of Section—Drs. J. Cochrane, of Alabama; D. A. Linthicum, of Arkansas; T. M. Logan, of California; R. G. Buckingham, of Colorado; B. H. Catlin, of Connecticut; L. P. Bush, of Delaware; F. Howard, of District of Columbia; —— Nottingham, of Macon, Georgia; H. A. Johnson, of Illinois; W. H. Myers, of Indiana; A. Y. Fields, of Iowa; D. W. Stormont, of Kansas; J. D. Jackson, of Kentucky; S. M. Bemiss, of Louisiana; S. Fitch, of Maine; E. L. Howard, of Maryland; H. I. Bowditch, of Massachusetts; H. M. Baker, of Michigan; A. B. Stuart, of Minnesota; A. G. Smythe, of Mississippi; D. F. Dean, of Missouri; J. H. Peabody, of New Hampshire; J. W. Parsons, of New Hampshire; E. M. Hunt, of New Jersey; A. N. Bell, of New York; William Clendenin, of Ohio; H. Bettenger, of Oregon; A. M. Pollock, of Pennsylvania; E. M. Snow, of Rhode Island; R. A. Kinlock, of South Carolina; J. Vanderman, of Tennessee; D. R. Wallace, of Texas; S. L. Cabell, of Virginia; A. T. Woodward, of Vermont; H. P. Strong, of Wisconsin; John Frissell, of West Virginia.

Committee on Necrology—Drs. S. C. Chew, of Maryland, chairman; A. Sager, Michigan; R. W. Hazlett, West Virginia; C. V. Mowtram, Kansas; John H. Collender, Nashville, Tennessee; D. V. Dean, Alonzo Garcelon, Maine; J. H. Wheeler, New Hampshire; W. W. Mayo, Minnesota; W. M. Chambers, Illinois; G. Sutton, Indiana; B. A. Vaughn, Mississippi; George Mitchell, Ohio; J. J. Woodward, United States Army; N. M. Dodson, Wisconsin; D. P. Yandell, Sen., Kentucky.

Judicial Council—Dr. A. N. Talley, South Carolina, for two years; Drs. J. R. Bartlett, Wisconsin; R. H. Gale, Kentucky; J. B. Johnson, Missouri; J. R. Bronson, Massachusetts; B. W. Catlin, Connecticut; Franklin Staples, Minnesota; W. V. Briggs, Tennessee, in place of the seven whose terms expire at this meeting. The rest of the present council continued.

Special Committees—Dr. A. R. Stover, chairman of a committee to report on American as compared with foreign water-cures, continued.

Dr. John Morris, of Baltimore, special committee on the use of pessaries.

Dr. John A. Octerlooney, of Kentucky, special committee on cystic degeneration of the kidneys.

Dr. H. T. Hand, of Minnesota, special committee to report on diseases of Minnesota and the Northwest.

The report was unanimously adopted, and the officers, and time and place of the next meeting proposed, were thereby confirmed.

DEATH OF A FORMER PRESIDENT.

The president announced that he had just received a telegram announcing the death of Dr. George Mendenhall, a former president of the association.

Dr. E. L. Howard, of Maryland, moved the appointment of a committee to prepare suitable resolutions in view of the event, and to transmit the same to the Committee on Publication in time to be included in the report of the proceedings of this session. The motion prevailed, and Dr. Howard was made chairman of the committee. The following gentlemen make up the balance of the committee: Drs. Murphy, Richardson, Highway, and Carson, all of Cincinnati.

The association adjourned, to meet in Louisville, Kentucky, on the first Tuesday in May, 1875.

For want of room, we are unable to make mention even of a number of valuable papers read before the association. The meeting was of unusual interest, there being 427 active members in attendance.

Proceedings of the Ohio State Medical Society, with other communications, are unavoidably crowded out of this number.

Editorial.

Occasion was taken in our last issue to indicate some of the advantages offered in Cincinnati to the student of medicine. We now ask the attention of the authorities in power to some other advantages that are not, but should be, held out as inducements to those who would enter the medical profession through our gates.

A few honored men have bequeathed to the city of Cincinnati various funds, to be used solely for educational purposes. Those funds constitute the endowment fund of the Cincinnati University. The trustees of the university have, from time to time, as the income of the university would allow, established departments of instruction, and appointed qualified teachers to fill them.

The law school has a faculty handsomely endowed from this source. The department of art is hardly equaled in any other city in the United States, having a number of teachers. Philology and mathematics have their professors. The observatory is nearly completed, and will soon be placed in charge of a professor of astronomy.. So of other branches of education—which is all well and good; for we rejoice in the possession by our city of superior educational attractions.

We would have our university trustees go on in the good work. On the part of the medical profession, we suggest that there be established, in connection with the university, a medical department, represented by four chairs or professorships, viz: Chemistry, which, as a branch of natural science, must necessarily soon claim a place, a professor, and a laboratory. Being an exact science, it does not come in collision with the peculiar teachings of any sect or school of medicine; the benefits would consequently be equally shared by all who would apply for instruction. A chair devoted to state medicine and hygiene is even more urgently demanded and needed than that of chemistry; for, unlike that chair, the subject is not taught in any existing college. As the medical profession is looked to as the natural conservators of the public health, it is eminently proper that a public institution, like the university, should supply all needed facilities for instruction in this most important department, to those who propose to enter the medical profession.

Attention is being more and more directed toward state medicine. A considerable portion of the very able address of Dr. Toner, the president of the American Medical Association, at its late meeting, was taken up with its discussion, and altogether the most important section of the association was that of state medicine and hygiene. Several states have organized state boards of health, whose duty it is to prevent the outbreak of epidemics, give advice as to drainage in various localities; and in cities, through city boards of health, enforce the proper construction of tenement houses, school buildings, public halls, churches, and theaters, and cause the improvement of various industries that are carried on in a manner that is detrimental to the health of the operatives—all of which and very much more concerns the well-being and prosperity of the body politic. The young men who are entering the medical profession are to be the state, county, and city health officers of the future. And it certainly needs no argument on our part to show the necessity of their thorough instruction on this important subject. Therefore, we say to the representatives of those who are to reap the benefits of their knowledge and skill, at your earliest possible opportunity, establish and endow, in connection with the Cincinnati University, a Chair of State Medicine and Hygiene.

Lastly, we ask the establishment of two chairs—that of Human and Comparative Anatomy, and of Physiology and Pathology. These chairs, like those above mentioned, will not come in contact with the peculiar views of any school of medicine, but will be valuable adjuncts to the existing colleges.

Nor will they in any just sense be rivals to the colleges, but will sustain toward them something like the same relation that exists with the various hospitals, whose staffs, during a large part of the year, give regular lectures to the students who are in attendance at the colleges. On the part of the college faculties, we have never heard of any complaints that additional instruction was given their students at the hospitals; but, on the contrary, each one sets forth in their circulars that such hospital instruction is to be obtained, and that on the payment of a nominal fee.

In connection with the two last-named chairs, there should be a laboratory for purposes of illustration and experimental research, in order to render practically the teachings of the great and fundamental principles represented by the above chairs. During the past few years, men of science and learning have been compelled to look to Germany for the latest discoveries in physiology and pathology; for the reason that there the government and a number of the municipalities have endowed laboratories and professorships for the more perfect study and teaching of the laws of health and disease. In order to make original investigations in these subjects, more time, money, and facilities are required than private individuals can usually afford.

As the public are to reap the advantages to be gained equally with the medical profession, we urge the establishment of the chairs and laboratories alluded to. They will be additional attractions to those seeking a place to acquire a medical education. Further, they would not in reality be a draft on the city even financially, but an acquisition.

For a number of years over seven hundred medical students have annually spent from sixteen to twenty weeks of time in our city, and the not inconsiderable sum of $150,000.

With the above chairs endowed and furnished with proper facilities for teaching the branches named, we would expect to have not less than one thousand medical students in Cincinnati for at least twenty weeks each year.

Gentlemen—members of the board of trustees of the Cincinnati University—we ask your favorable consideration of our suggestions.

To the Editor of the Lancet and Observer—DEAR SIR: I wish to call the attention of the reviewers of Dr. Fordyce Barker's new book on "The Puerperal Diseases," to what seems to me to be a remarkable coincidence.

If Lecture XVIII., p. 393 *et seq.*, of Barker's work, be compared, with page 30 *et seq.* of a work published by Dr. A. Lacassagne ("De la Putridite Morbide et de la Septicemie Histoire des Theories Anciennes et Modernes, Paris, 1872), a most remarkable similarity both of arrangement and language is observable. As Dr. Barker does not allude to Lacassagne's work, I suppose that he has never seen it. Trusting that such a matter may be easily explained away, I remain, respectfully,

T. C. M.

DR. GEORGE MENDENHALL was born in the village of Sharon, Beaver county, Penn., May 5, 1814—a descendant from the early Quaker settlers of that State. During his early childhood, his parents removed to the vicinity of Fairfield, Columbiana county, Ohio, where the subject of this notice spent the greater part of his minority, receiving such an education as the schools of the neighborhood afforded; in addition to which, his father, who was a man of learning and cultivation, with a well-furnished library, imparted to him much valuable instruction. His habits of industry were a marked feature of his boyhood, and caused him to make good progress in his studies. Of delicate frame and constitution, he seemed unfitted for any occupation requiring much physical effort.

Soon after the death of his father, which occurred when he was fourteen years of age, he entered a country store. Two years' assiduous attention was given to this varied occupation. to the satisfaction of his employers. His spare time was devoted to reading works on chemistry and pharmacy, suggested by his duties in dealing out medicines to the customers of the store. While in this employment, he was encouraged to enter upon a regular course of medical studies. With this in view, he commenced the study of Latin; afterward entering the office of the late Dr. Benjamin Stanton, of Salem, Columbiana county, Ohio—a man eminently well qualified to advance his young student in his chosen profession.

After two and a half years of diligent study, Dr. Mendenhall entered the University of Pennsylvania, where he continued until his graduation from that institution, in March, 1835, being then about twenty-one years of age. The ensuing May, he opened an office in Cleveland, Ohio. where, by industry and fidelity, he acquired a fair share of public patronage.

In the fall of 1837, he again went to Philadelphia, to accept the position of resident physician in the Philadelphia Hospital, where he remained until the ensuing spring, when he was attacked by a malignant form of typhus fever then prevalent in the hospital. By assiduous care and attention from the hospital staff and his fellows in the hospital, he was enabled to leave the institution alive.

In October, 1838, he was married to Miss Elizabeth S. Maule, of Philadelphia. On his return to Cleveland, in the spring of 1838, he resumed the practice of his profession, gradually increasing his business until January, 1843, from which time until spring he was confined to his room with a pulmonary attack, which threatened a permanent loss of health, and was admonished to seek a more genial climate. During his residence in Cleveland, he was three times elected a member of the municipal council.

In October, 1843, he removed to Cincinnati, with impaired health, no practice, and a dependent family, but with great energy and a hopeful disposition, he again began the practice of medicine. Soon after his arrival in Cincinnati, he associated himself with Drs· Vattier, Chamberlain, Warder, and Williams in the conduct of the City Dispensary. In company with some of the above-named gentlemen and others, Dr. M. organized a summer school of medicine, which was carried on with success for several years.

The prevalence of cholera from 1849 to 1852 entailed upon him very great labor, which was performed with the loss of but a single day by sickness. In addition to his duties as a practitioner, he was sharing the responsibilities and duties of the late Dr. L. M. Lawson, editor of the *Western Lancet* (now LANCET AND OBSERVER)

In 1852, he engaged with several medical men of the city in the organization of the Miami Medical College, an enterprise attended with success; but, after five years, it was thought that the cause of medical education would be advanced by a union with the Medical College of Ohio. Dr. Mendenhall occupied the same chair in the new organization as in the Miami College. Holding this position for three years, the anticipated advantages not having been realized, he resigned his professorship.

In 1865, the Miami Medical College was reorganized, Dr. Mendenhall being elected dean of the college. In 1869, he was elected President of the American Medical Association, and presided over its sessions the succeeding year, in the city of Washington. In 1872, on account of failing health, he visited Europe. During the same year, he was elected a Fellow of the Obstetrical Society of London. In 1873, he returned to Cincinnati, where he soon after had an attack of paralysis, which eventuated in his death on the 4th of June.

At a meeting of the profession of Cincinnati, held June 6th, the following resolutions were adopted:

"As a profession, we are called upon to express our sorrow for the loss of our brother, Dr. George Mendenhall.

"For more than thirty years he has been a successful practitioner in this city. Few men have been more faithful, industrious, and devoted in all of his relations. Of an amiable disposition and a kindly heart, he stood always ready to help a deserving and unfortunate brother, as well as to minister freely to the sick poor. In every way he was a truthful man, and no one entertained a higher regard for rectitude in all of his relations to his brethren.

"In all cases he was found taking sides with the true and the good.

"Animated with the highest sense of his duty to the sick, he was ever faithful and devoted in his ministrations. No one of his many patients had cause to complain of neglect or lack of sympathy from him. Naturally sensitive and conscientious, he was always exercised to know what to do, and how best to do, in all the various offices of life.

"With him it may be said that to work was to worship. Above all, he was a high-toned gentleman, and his life will long be an example to young as well as old men, that truth, honesty, and high purpose are the only rewards of life. Therefore,

"*Resolved*, That in the death of Dr. Mendenhall the profession of this city has lost a distinguished member, a man of pure life, and a true gentleman.

"*Resolved*, That the city loses the services of a good physician, and an honorable and valuable citizen, whose chief aim was to make his life useful in good deeds.

"*Resolved*, That a copy of these resolutions be sent to the family, and published in the daily papers, and in the LANCET AND OBSERVER.

"*Resolved*, That we will attend his funeral in a body."

ACTION OF THE MIAMI MEDICAL COLLEGE FACULTY.

At a meeting of the faculty of Miami Medical College, held June 5, 1874, Professors Williams, Murphy, and Richardson having been appointed to give expression to the feelings of the faculty in regard to the death of their late distinguished colleague and friend, Professor George Mendenhall, submitted the following preamble and resolutions, which were unanimously adopted:

"WHEREAS, An All-wise Providence has removed from our midst our late friend and colleague, Professor George Mendenhall; and,

"WHEREAS, His many virtues as a man and citizen, and his distinguished character as a physician, entitle his memory to public as well as private tribute; and,

"WHEREAS, In his death society has lost a notable example in behalf of the highest morality, his family a devoted husband and affectionate father, the medical profession an honorable and ardent co-laborer, and the sick a faithful, skillful, and kind-hearted friend; therefore,

"*Resolved*, That we heartily testify to his many prominent virtues as a citizen, his deserved distinction as a physician and medical teacher, and his devotion to that which he recognized as his duty.

"*Resolved*, That we tender our heartfelt sympathy to the family of the deceased; that a copy of these proceedings be sent them; that they be recorded in the minutes, and that they be published in the daily papers of the city, and in the LANCET AND OBSERVER.

"JOHN A. MURPHY, M. D., *Dean of Faculty.*

"WM. H. TAYLOR, M. D., *Secretary.*"

[Correspondence.]

MOUTH OF WOLF, TENN.

Dr. J. C. Culbertson:

DEAR SIR:—Having given you a case of spina bifida which came under my observation, I will give you the results of the case in as brief a manner as possible. The child was seventeen days old at the time of last writing, and was somewhat improved as regarded the paralysis, and in this respect continued to improve a little until the twenty-fifth day, when all signs of improvement ceased, and the child commenced to retrograde in every respect, until the time of death, twenty-nine days after birth—at which time the sore on the spine was only about one-half as large as it was at birth. It was never able to cry, or draw milk from the breast at any time, and for a few days before death, was unable to swallow anything, unless it was placed far back in the mouth with a very small spoon. Yours truly,

HENRY HODGE, M. D.

Married.—At the Universalist parsonage, Norwalk, May 27, 1874, by the Rev. H. L. Canfield, Dr. Harrison Hathaway and Miss Sarah L. Bloomer, both of Weaver's Corners, Huron county, Ohio.

Another Follower of Æsculapius Married.—At the residence of the bride's parents, June 9, 1874, Dr. R. H. Chilton, of Louisville, Ky., and Miss Sallie A. Harrison, of Albany, Ky. No cards.

Reviews and Notices.

History of the American Ambulance, established in Paris during the siege of 1870–71, together with the details of its methods and its work. By THOS. W. EVANS, M. D., DD. S., Ph. D., President of the American International Sanitary Committee, Commander of the Legion of Honor, etc. London: Printed for the author by Sampson Low, Marsten, Low & Searle, 1873. Vol. I.

The chief characteristic of the more recent wars between the civilized nations of the world, has been exhibited in the organization of volunteer societies for the relief of the wounded and sick belligerents. In no period of the world's history have contending armies received from neutral countries such munificent aid, as was furnished by the sanitary institutions organized during the war of the rebellion in the United States, during the Austro-Prussian war, and still later, during the Franco-Prussian war.

The volume under consideration is, the author states, a history of the American Ambulance, complete. The first ninety pages of the work are devoted to an account of the essential facts connected with the organization of the American International Sanitary Committee of Paris.

Next follows a report on the establishment of the army hospitals, by Dr. Edward A. Crane. This essay is replete with interesting information, not only to the medical, but to the general reader. The writer discusses at length, in a most intelligent manner, the principles of construction and organization of army hospitals, as well as the general character and kinds of temporary and portable shelter for the sick.

The essayist discusses at length the history of army hospitals, and describes somewhat in detail early military hospitals, and quotes from Turpin de Crissé to prove that they were "an unfathomable gulf; the source of their honors appears to be inexhaustible." For a long time the causes of the great mortality among the inmates of hospitals was not clearly made out; overcrowding was regarded as one of the chief faults peculiar to hospitals of the past century. But the relation existing between overcrowding and an increased mortality was not understood. Pastoret and others who studied the atmospheric condition of hospitals, succeeded in proving the disastrous consequences of overcrowding, but failed to discover the specific causes of the danger, or any practical method by which they might be remedied. The only point gained in the atmospheric conditions of French hospitals, was an increase in the air-space allowed to each patient's bed. Hussen shows that the first ventilating-apparatus which was ever used in France, was introduced as an experiment into one of the pavilions of the hospital Beaujon, in Paris.

After a full, indeed we might say an exhaustive review of the whole subject, Dr. Crane concludes that it is much easier to assure a sufficient and unfailing supply of fresh air to the inmates of tents than to those dwelling in ordinarily constructed buildings. The experience of the late war in this country (the United States) fully demonstrated that the wounded, as well as the sick, always made a more certain and prompt recovery in tents than in even the best-constructed hospitals; and this was true, not only in summer, but also in the winter. Dr. Crane truthfully remarks that we have made great progress in the hospitalization of the sick of armies, but that we have still to find a remedy for the suffering and waste of life, occasioned by crowding sick and wounded into churches, barracks, and such like buildings, extemporized into war-hospitals.

Baron Larrey long ago pointed out the great advantages of employing tents for the shelter of the sick and maimed soldiers, and suggested that the evils of overcrowding and infection could only be successfully combated by dissemination and an increased number of provisional hospitals. The war of the rebellion fully demonstrated the overwhelming advantages of a general dispersion of the sick through the country. The grand feature of the medical department of the United States army did not consist simply in the bountiful provision made by the government for the care of the sick and wounded, in the construction of general hospitals, or in the abundance of hospital supplies furnished; but its crowning feature was its transport service. The history of civilization does not furnish such another instance of the vast measures instituted and carried out for conveying the sick and wounded from the "front," from "post," "division," and "field" hospitals to general hospitals. Steamboats and railways were everywhere brought into requisition for disseminating the sick among the general hospitals throughout the Northern States. By this means, infection was promptly neutralized, and those diseases so destructive to life in crowded hospitals were averted, and thousands of lives saved. It was often apparent to the medical officers, that without this means of emptying out almost *en masse*, the mortality in many of our hospitals would have perhaps attained proportions as great as any of those of the Crimean war.

The succeeding two hundred pages contain a well-written and instructive essay on "Tents and Tent-barracks," in which the author gives a very fair summary of our present knowledge of tent architecture, embracing the advantages of tent-barracks over other modes of permanently sheltering troops, and describing several of the forms recently proposed for such constructions. The history of the use of tents as a means of shelter, from the days of Noah, Lot, and Abraham down to our own time, is quite complete, and will prove of interest to every one who notes the progress of civilization, and who seeks the general welfare of mankind.

The remaining part of the volume is mainly devoted to the surgical history of the American Ambulance, in which is given a résumé of the general treatment adopted. The antiseptic treatment (with carbolic acid and preparations of chlorine) was pretty fully carried out. Oakum was largely used for the purpose of keeping the dressings free from offensive odors, or as an absorbent and deodorizer.

Drainage-tubes of India-rubber were used in compound and complicated fractures to prevent pus accumulations. Dr. Swinburne, the surgeon-in-chief of the ambulance, attaches great importance to these drainage-tubes as a means for preventing necrosis of bone, and suppurative inflammation, blood-poisoning, etc., etc.

The rules laid down for the treatment of fractures of the shaft of long bones and the joints are, in our opinion, judicious; and the principles adopted were essentially the same as those which governed the same intelligent surgeons in their treatment of similar cases during the war of the rebellion.

The mechanical execution of the work is admirable. It is well illustrated with maps and diagrams.

History of the Conquest of Peru.

In previous numbers of this journal we have noticed Prescott's works, now being issued from the well-known publishing house of Lippincott & Co. We have just received from them the "Conquest of Peru," which is as good in all respects as the former books. All would enjoy them. Price, $2.25. S.

Lectures on Bright's Disease, with especial reference to Pathology, Diagnosis, and Treatment. By GEORGE JOHNSON, M. D., Fellow of the Royal Society, etc. G. P. Putnam's Sons, Publishers, New York.

These lectures were originally published in the *British Medical Journal.* The author gives a practical account of Bright's disease, omitting theoretical and disputed points in the pathology of the disease. Lecture II. is necessarily devoted to the minute anatomy of the kidney, with the physical characters of the urine, followed by a history and definition of the term "Bright's disease." Of the latter he accepts the one laid down in the new nomenclature of the Royal College of Physicians: "Bright's Disease; Synonym, Albuminuria. Definition: A generic term including several forms of acute and chronic disease of the kidney, and usually associated with albumen in the urine, and frequently with dropsy, and with various secondary diseases resulting from deterioration of the blood." Taking the ground that Bright's disease is not always and of necessity a hopelessly incurable malady, he then states that the disease is not merely a local malady, but one of constitutional origin. "Confirmatory evidence of the blood origin of Bright's disease is derived from the fact that the malady occurs in association with constitutional states in which a morbid condition of the blood may confidently be assumed to exist. The morbid blood which is assumed to be the proximate cause of Bright's disease in all its forms, exerts its influence primarily and chiefly upon the gland cells which line the convoluted tubes. In order to facilitate the examination of urinary sediments of all kinds, the urine should be allowed to stand for a few hours in a four-ounce conical glass."

The first most important precept laid down for the treatment of the disease is absolute rest, in a room of equable temperature, and a close attention to the diet of the patient. The book consists of 150 pages, and is well illustrated.

For sale by Robert Clarke & Co. Price, $2.25.

The Science of Homœopathy; or, A Critical and Synthetical Exposition of the Doctrines of the Homœopathic School. By CHARLES J. HEMPEL, M. D. Boercke & Tafel, Publishers, New York.

The author takes quite a departure from what is known as pure homeopathy, frequently ignoring infinitesimal doses. He states, on page 15, that he "has constantly been found among the foremost to condemn all exclusiveness regarding doses; and that he has always contended that it is every physician's right to prescribe such a dose of the appropriate remedy as in his judgment may seem best calculated to strike down the enemy, disease, most effectually and quickly; and holds that any dose, large or small, is legitimate and scientifically correct, which will effect a cure in the most thorough, safe, and expeditious manner."

After reading the above, we turned to the title-page to see if we were really reading a book on the science of homeopathy. Such seemed to be its purport, and we read further.

We find, on page 21, he is prescribing one-grain sugar-coated quinine pills, every two, three, and four hours, for intermittent attacks and as a tonic, and a sugar-coated pill containing two grains of iron. Page 23, our author "affirms, from personal experience, that homeopathic physicians who confine themselves exclusively to the use of infinitesimal quantities in their practice, throw away immense advantages which are possessed by those who know how to use low or high doses, as the case may be." Again, page 24, we quote: "Homeopathic physicians who can not learn a great deal from the writings and practice of recognized old-school authorities are to be pitied. Even on the subject of dose the great masters of that school can teach us a great deal that may prove of immense benefit to the furtherance of our own cause." Of course they can and do, as nearly, if not quite, all the advance made in the science of medicine has been accomplished by members of the regular school.

The book is misnamed; or, if it is really an exposition of the science of homeopathy, we, like the author, must say we pity her followers.

A New Destroyer of the Hair.—Under the above title, Dr. Boettger, in the *Memorabilien*, says that we possess a new material for destruction of hair, of a most suitable description, in a mixture of one part of crystallized sulphydrate of sodium with three parts of fine carbonate of lime mixed and reduced to a very fine powder. This mixture may be kept any length of time without alteration in well-closed bottles. When moistened with a drop of water and laid by means of the back of a knife on the part of the skin covered with hair, we in a few minutes find the thickest hair turned into a soft mass, easily removed by means of water. If it remains on the part long it will cause a slight irritation of the skin.—*London Medical Record.*

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J. C. CULBERTSON, M. D., Editor.

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Original Communications.

Art. I.—Conditions of Organic Life, with a Glimpse of the coming Science of Life and Medicine.

By Z. COLLINS McELROY, M. D., Zanesville, Ohio.

All life on the earth, animal and vegetable, has its conditions. Many of them are known: some of easy demonstration; others are less obvious, and therefore of more difficult recognition, except by the results of their presence or absence to living beings or things, as illustrated in the recent and widely prevalent disturbance in the conditions of horse life, and called "The Epizootic." And any considerable modifications of the conditions of life, if permanent, are certain to be followed by important modifications, or the entire disappearance, of the special forms of life dependent on them. Thus, the mammoth—known to have existed only by its fossil remains—disappeared, in all probability, because the conditions of its life ceased to exist. The aborigines, and various wild animals, which, within the memory of some still living, had almost exclusive possession of the territory now known as the State of Ohio, have passed away, for the simple reason that the conditions of their lives have ceased to exist.

Much, if not all, of the business of civilized life—agricultural, mechanical, commercial, and professional—has for its ends supplying conditions for human life and necessary domestic animals. Important as a study of the conditions of organic life is, the medical mind has been mostly occupied during all the past in studying mythical entities of "disease," now seen to be only modifications of natural processes in health, of which it professes to have identified many hundred different and distinct varieties.

And, for the equally mythical "cure" of these many hundred different and distinct mythical entities of "disease," a tireless search has been pursued among the simple and complex compounds of the matter of the earth, organic and inorganic, for many centuries past. Improvements have been all along, and in the main, administrative, rather than fundamental and philosophic. That for which explanations could not be readily found, has been merged into the unknown—the supernatural—the legitimate workings, or vagaries, of a so-called vital force—a force peculiar to living beings or things, and in no way related, or correlated with the ordinary forces of nature, and found nowhere else in the universe than in organic life.

Practitioners of all the different schools and sects of the healing art continue to give medicines blindly, and the people to take them blindly, without much, if any, reference to the conditions of life necessarily attached to individuality. The growing importance of hygiene, which has struggled so long for a recognition and an existence, and the more general recognition of sanitary conditions in our own times, are efforts toward determining, or mapping, some of the many complex conditions of individual lives. For much, if not all, of what is called "chronic disease," or "incurable diseases," are due to modifications of the structural arrangement of the material of the bodies of those who thus suffer, which necessarily involves changes of function, and therefore modified conditions of life. There is a partial recognition of these changed conditions of life by those who change places of residence, travel, visit mineral springs, and summer and winter resorts, hoping to regain losing or lost health. But the great mass of mankind seek relief at the hands of the professions of medicine, one after another; and it is they who constitute the "innumerable army of martyrs," who make the fortunes of patent medicine manufacturers and vendors while they swallow their nostrums, but rarely, if ever, get what they hope or expect at the hands of "Doctors." And they receive not a little unnecessary medicine at the hands of the regular profession. Individuality prevents mapping with exactness conditions of life comfortable for all.

We who are regulars talk of our science and practice of physic, or medicine; and this claim is conceded to us by the learned world, rather as a courtesy than a fact, as a body of men, many of whom, in regard to all other things than their special callings, are really learned, often profoundly learned, but not in a science of life; for such a science has never been constructed by either regulars or irregulars. Not from any lack of materials does a science of life fail to exist; for the accumulated facts of life are already so numerous that the longest life would hardly suffice for their bare reading. To construct a science of life, these masses of detached facts will have to be—to borrow a commercial phrase—dealt with by the wholesale, merging particulars into generals, and bringing apparently contradictory facts into harmony; showing their mutual relations, as well as their relation to some central unity or unities of life. The very magnitude of the task of reducing this vast mass of facts—true and false, important and unimportant—to order, effectually prevents attempts to construct a science of life.

The ideal unities into which efforts have thus far been made to merge the accumulated and accumulating facts of life—dynamical, physiological, pathological, and therapeutic—have descended from the remotest antiquity unchanged in significance.

Other branches of knowledge have had their facts carefully separated from the assumptions, traditions, hypotheses, and superstitions with which all knowledge was at one time blended. Medicine, singularly enough, has escaped this purification, and presents the anomalous spectacle to-day of endeavoring to harmonize the exact knowledge of several of its ministerial branches with the terms and ideals of tradition! With what success, let the utter want of scientific order in its crowning stage—the remedial management of sickness, certainly the leading characteristic, alike of regulars, irregulars, and proprietary medicine manufacturers and dealers—testify.

To place medicine in the position it ought now to occupy, it is absolutely necessary that all ideals, or unities, or conceptions now in use, and the words or terms which represent them, which do not correctly represent the facts of life to the minds of professions and people, be dropped, and others substituted, which shall, in the conceptions to which they give rise, or with which they are associated, correctly represent them to the mind of the world.

An examination of these ideals or unities, and the terms used in their expression, in contrast with the facts and conditions of life, will make this necessity more plain.

The first one of these is "Disease." There are probably few readers of current medical literature, who do not, in common with their fellow-men, civilized or savage, accept the existence of "disease," or "diseases," as commonly understood, by professions, regular and irregular, as a fixed and unchangeable fact, which none have dared to challenge. And, until recently, there has not been. Strictly defined, and according to its etymology, it means not easy. And if there were no other meaning attached to it, its use would be harmless.

But that is not either the popular or professional understanding of it.

The concept which, for all practical purposes, is nearly universally held, alike by professions and people, is that "disease" is a special entity, or identity—a something added to, and not natural to, or foreign to the body, which has gained access to its interior, as is there running and rioting among its organs and structures, aud deranging its functions.

To declare that there is not now, never has been, and never can be such a thing as "disease" in the human body. as professionally and popularly understood, would probably excite a smile of incredulity with a large proportion of the profession, and about universally with the people. Yet such a denial announces a strict and scientifically accurate fact. All of the concepts ordinarily connected with the term "disease" beyond a state of pain of the body, are simply delusions, without foundation in fact or science.

The conditions of normal, or natural structural life, as fully demonstrated by observation and experience, may be stated as follows—more particularly referring to human life, but applicable, with little variation, to all animal life:

1. Chemical analysis demonstrates that the human body, at all habitable points of the earth's surface, is composed of a definite number of inorganic elementary materials, and in definite proportions in its several structures.

2. Thermal (temperature) observations demonstrate that it has a definite temperature at all geographical points.

3. Post-mortem observations demonstrate that natural function during life is always associated with definite molecular forms of structure in each and every niscus or texture.

Stated in definite propositions or formulas, the results of these experiments and observations are about as follows:

1. Definite inorganic materials in definite proportions.

2. Definite arrangement of materials in definite forms of organic structure for each and every function.

3. Definite velocities of chemical or physical changes in the materials of structures, whose unit is simply motion of matter.

Such are the broad conditions of natural or healthy structural life.

Pathological, or unhealthy life, has its conditions of structure as follows:

1. Molecular (physical, chemical) motion of materials of structure, above or below, or changed from, natural or physiological velocities.

Elevations of temperature are one of the incidents of all so-called acute diseases. Modifications of and depressions below physiological velocities are incidents of chronic diseases, so called, and conditions known as "nervous," and also results of so-called shock, extreme depressions of external temperature, and certain modes of force stored up in material, as veratrum viride, etc., which retard tissue metamorphosis upon which temperature in living bodies depends.

2. Changing molecular arrangement, or forms of structure, in living bodies, in such a manner as to admit future performance of function, not perceptibly unnatural, in at least some instances; conspicuously seen during the progress of so-called small-pox, measles, scarlatina, hooping-cough, syphilis, and is one of the necessary results of advancing life or time to each individual existence.

3. Changed molecular arrangement of the materials or molecular forms of living structure, and generally associated with more or less modifications of the external appearances of structure or flesh, as seen after so-called small-pox, scars from wounds, etc.

In case of small-pox, the changed molecular arrangement of material generally seems more or less immunity from subsequent "attacks;" as well as in scarlatina, measles, hooping-cough, etc., where changes of external appearance are not obvious, though the changed molecular arrangement of material internally is demonstrated by the nearly, though not quite full, protection from like changes during after-life.

4. Lost molecular arrangement of material, or "molecular forms of structure," as seen in tumors, morbid growths, etc.; loss of motion in joints after accidents, blindness, deafness, paralysis, changes effected by time, called old age, etc., etc. All so-called "chronic diseases" are arranged under the third and fourth divisions.

And into these ideal unities of pathology merge every possible pathological or unnatural condition of the structure of living bodies, including all the so-called "diseases" and sickness, and accidents, by any or all modes of force, statical or dynamical, past, present, or future, and until the universe comes under the dominion of regulations different from those now in force for its government.

To be, if possible, still more explicit on these points, let me here reiterate that nothing more, nothing less, or nothing different can be done to a human body, or for that matter to any living thing, well or sick, alive or dead, than to accelerate, or retard, or modify motion of material composing structure—*i. e.* molecular changes of material—and change the molecular arrangement of material in structure, which is, in itself, simply and only motion of matter. And motion of matter is the sole feature of all organic life, over which man has any control whatever, by any or all modes of force combined—*i. e.* by "drugs and medicines," remedial agencies or measures, or physical or chemical means—except through natural channels, as "breeding special strains of stock," etc.

In any scientific scheme of pathology or sickness, each and every one of the many hundred distinct "diseases," now recognized by the profession and people, must be arranged in orderly groups of variations from physiological or natural velocities of physical or chemical changes in structural materials, and changing, changed, or lost molecular forms of structure, or arrangement of material in structure—forms of organic structure being lost, or changed at certain velocities of motion in the material of structure, above or below the natural rate or pace. Or, to be more explicit, again, the difference between all so-called "diseases" is simply and only modifications of the natural or physiological motion of the materials of structure in living bodies; and this sooner or later carries with it modifications of the arrangement of material in forms of structure. As Dr. Rush declared, nearly a century ago, there is but one "disease" so called.

Such a classification of human sickness will, in the minds of both people and professions, give rise to concepts, which will correspond with the actual facts of life. In other words, they will reflect or represent truth.

Quackery in medicines thrives on popular and professional ignorance of the facts and conditions of life. The popular mind in the possession of truth, quackery in the healing art ceases at once, and it is not likely to cease before.

In the same situation, in relation to the facts and conditions of life, as the term "disease," *i. e.* legacies from a non-scientific era, very far back in the past, are current concepts of the mode of operation of medicines, that is, what "drugs and medicines," and remedial agencies, and expedients can and do accomplish in living bodies; and how they do it, resulting in the recognition of from thirty to forty different effects, general and local, and as many classes.

Medical men have no power either to create or destroy the smallest atom of matter, organic or inorganic; nor can they either create or annihilate the force or forces concerned in the motion of matter; and they have not now, never have had, and are never likely to have, the power to combine material and force into organic forms of structure, capable of performing a function, except through natural channels. At least, they are not likely to do any of these things until they wield the powers of a CREATOR, which it is very certain they do not exercise now. But they have the power to advance, retard, or change the velocity of motion by matter, by modes of force stored up in chemical combination of matter; for, technically, that is just what "drugs and medicines" are—modes of force stored up in the chemical complexity of matter, from the organic and inorganic realms of nature; and the sole power which remedial art can wield, is to antagonize one mode of force with another or others, and so bring about the equilibrium of moving material, which is the aim and end of it, and the central condition of natural organic life.

Any scientific scheme of remedial management of sickness must recognize this limitation of power and means to possible and probable ends. And remedial agents and agencies must be classified as they advance, retard, or modify motion of materials in living structure, to the end that the facts of individual experiences with them may be correctly represented to the mind of both people and profession.

And, again, current concepts of the "cure" of "diseases" are in the same unfortunate category as "diseases" themselves—an idea of antiquity into which the results of remedial proceedings can not be merged, if scientific accuracy is aimed at; for, as there is no "disease," so there can be no "cure of disease," as commonly understood.

And yet one more ideal of antiquity is the so-called "vital force or vital forces," as distinct from, and in no way related to, or correlated with the ordinary physical modes of force, as light, heat, etc. As such, it or they have no better foundations than tradition or assumption. The "vital force" is a myth, pure and simple.*

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*Force is only known or to be recognized under two conditions, viz., force statical and force dynamical.

Force, or energy, statical, is force STORED UP in materials, generally more or less chemically complex, capable, under certain conditions, of being converted into force dynamical. Statical force is therefore force potential or possible, and stored up in material.

A piece of coal or wood, or parcel of gun-cotton, or nitro-glycerine or nitrate of silver, or chloroform, or opium, mercury, or chloral, etc., are examples of force potential or possible; or force "stored up" in material, under certain conditions to become force actual or force dynamical.

Force dynamical is force actual, as in the burning of coal or wood, which is simply chemical decomposition, and is therefore force statical or stored up, converted, in the act of chemical decomposition, into force actual or force dynamical. So, the explosion of gun-cotton or nitro-glycerine, is force stored up, potential or possible, converted into force dynamical or force actual; which act of explosion is, again, simply chemical decomposition. The difference between the force actual from burning wood or coal and by the explosion of gun-cotton or nitro-glycerine is simply in the velocity at which the chemical changes occur in them in the act of chemical decomposition.

Again, chloroform, mercury, opium, chloral, or any other "drug or medicine, or chemical," from the organized or inorganic realms of nature, are examples of force potential or possible, stored up in material, which, in living bodies, is converted into force dynamical or actual. And, however much modes of force actual, from modes of force possible, stored up in drugs and medicines, may seem to differ from each other in living bodies, there are but three possible effects which any of them can produce, viz:

1. Advancing the velocity of the molecular changes actually occurring in the materials of living tissue, as seen in strychnia, electricity, podophyllin, etc.

2. Retarding the velocity of the molecular changes actually occurring in the materials of living tissue, as seen in chloral, chloroform, veratrum viride, gelseminum, etc.

3. Modifying the velocity of the molecular changes actually occurring in living tissue, as seen in mercury, iodine, Peruvian bark, etc.

Any drug, medicine, or chemical that does not do one of these things, "stores

No science of medicine can be constructed which embraces in it these ideals or unities, with the conceptions now associated with them; and they are directly and indirectly the cause of the present confusion or chaotic condition of the healing art.

These are, in part, and inside of the profession, the obstacles to be overcome, and great gulfs or chasms they undoubtedly are, separating empirical from scientific biology and the coming science of life and medicine. They are interwoven with both sacred and profane literature from the very beginning of human history and knowledge.

But they are not all, for the learning of the religious world, as a body, steadily and persistently opposes the study of the phenomena of organic life on any other than a miraculous or supernatural basis. There is now in progress an earnest contest between "religion and science," as if they could, by any possibility, be antagonisms. As antagonists to science, they have placed themselves in an erroneous position. Their opposition is confessedly based on the fear or expectation of exact or physical science overthrowing the supernatural foundation on which they conceive religion and revelation to rest. In this, too, it seems to me they are in serious error.

That the learning of the religious world are mistaken in their opposition to science, it seems to me is not difficult to show. For, taking the account of the creation of the human body (and all organic life), as contained in the seventh verse of the second chapter of Genesis, and in its consideration not limiting the act of *creation* to any definite number of hours and minutes (and this, physical science now shows to be unnecessary), and compare its literal account with the processes and time actually occupied and necessary in each act of its reproduction to-day, it will be seen that it will apply equally to the original act of creation and each reproduction of it ever since, and is to-day literally, strictly, and scientifically accurate.

The recognized English text is as follows:

"And the Lord God formed man of the dust of the ground, and

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up" in its material no force potential or possible, to be converted into force actual or dynamic in the living body, and is therefore inert, a dummy on a very busy stage.

Nothing is or can be known of any mode of force which does move or is not coincident with motion of matter.

breathed into his nostrils the breath of life, and man became a living soul!"

In this brief account of the creation of man there are detailed two steps or acts, and one result of the two acts; viz., forming the physical body of man out of the dust—literally particles of inorganic matter, or matter common to the ground or earth—and communicating by breathing into the nostrils or through the nostrils the breath of life,* with the result, a living soul!

Comparing this account with what occurs in every individual instance of reproduction and multiplication of the human body (or form) to-day, it will be seen that the different processes and their result are identical.

To-day, "man"—*i. e.* the body—is "formed" of organized inorganic materials—*i. e.* "the dust of the ground," the food eaten by the mother during intra-uterine life; and "the breath of life"—*i. e.* a gentle and fixed rate of motion in the materials of structure—is communicated to the "form" after birth, through the same channels, viz., the nostrils; and with precisely the same results—a living soul!

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*1. Gesenius, "the prince of Hebrew lexicographers," as he is called, says the word translated "life" in this sentence (Chayyim) is primarily an adjective, denoting some quality of a thing, and not a thing itself (a vital force); and defines it as follows: 1. Alive; living. 2. Lively; vigorous; strong. 3. Living (again); reviving. 4. Live; fresh; raw (of flesh); living; fresh; of a plant, green, not dry; of flowing water, as opposed to stagnant or putrid water, which latter is called (in Arabia) dead water.

2. The Hebrew word (Nishmath) translated "breath," is derived from a verb (nâsham), and has for its primary meaning, according to the same authority, "to blow gently as the wind."

Taken together, and in connection with the precision shed upon the events to which they refer by modern science, these two Hebrew words convey the meaning or idea of communicating to the materials of the "molecular forms of structure" of the "form," which had been "made" of "the dust of the ground," a gentle and fixed rate of motion for health, though the rate of motion in them may be advanced to a tornado or retarded to a calm, which are facts confirmed by modern thermal observations of the human body in health and sickness. In health, the temperature of the human body is 98 4-100° Fah. In some sickness—fever—it is advanced to 108° Fah.; in others, retarded to 94° Fah. But the range of motion—heat—is very narrow during life; the extremes are 92° and 110° Fah.

As to the time* required and occupied now, take the ages of male and female, respectively, at which it is possible for them to reproduce and multiply their kind. for the first time, at fifteen years for each, which, added together, makes thirty; to which must be added the period of their intra-uterine lives, one and one-half years for both, and thirty odd years of our time has been occupied in simple preparation to perform the respective parts in the acts of reproduction. Complying with the requisite conditions, a further period of three-quarters of a year is consumed, and a human being results—utterly helpless, incapable of providing for its simplest physical wants for several years more, and for a further period of from ten to twenty years, more or less dependent on others; and absolutely so for that "education," which best qualifies male or female to perform the duties which may be imposed on them in after-life by human society, as incidents of providing for their own sustenance. Half a century, more or less, has thus been occupied in simply "forming" a human body, and as yet it is barely competent to provide for its own actual physical wants, *i. e.* supplying by its labor proper food, clothing, and shelter.

At birth, the structures necessary for appropriating other and different materials than the blood of the mother to the further growth and evolution of the body, including the special senses, are measurably perfect. But the special molecular forms of structure upon which future moral and intellectual character is dependent, are yet to be added by what is called "education." It will be shown in the sequel that function is the index, or expression, or language of molecular arrangement, or forms of structure behind it. For. from the lowest to the highest types or forms of animal life—rising from the simple cell, multiplying itself by segregation, to the most complex, the human body, in its prime of physical and intellectual development—each added function depends on, and has behind it, special molecular arrangement of material.

The capacity, for example, to write this memoir, let its contents be worth something or nothing in the world of mind—and to all else than mind it is without value—has required a whole century (including parents' ages) to give to the author's brain matter the special molecular arrangement of material on which it—capacity—is dependent. And when these are changed or lost, the author will, if living, be insane or imbecile. And this has been accomplished with all the modern aids and appliances for education; and with the aid of the accumulated knowledge of the past. And the conclusions to which this memoir will lead have been worked out against the teachings of early life; for, professionally, the author is one of the strictest and straightest of his sect, having received his medical education more than a quarter of a century ago, at the then' oldest and leading school on the continent. And he gave to his teachers no half-way confidence, but accepted from them what he at that time considered scientific truth. Much of what he then and there learned he has had to unlearn since. And it has been no holiday pastime to do both.

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*There is no such thing as absolute "time," separate and distinct from simple motion of matter. What we call time, and the method of its computation, is the relative and ever-changing positions to each other of the moving heavenly bodies of the solar system.

Two of the inspired writers thus speak of it:

"For a thousand years in thy sight *are* but as yesterday when it is past, and as a watch in the night." Ps. xc. 4.

"But, beloved, be not ignorant of this one thing, that one day *is* with THE LORD as a thousand years, and a thousand years as one day." 2 Pet. iii. 8.

It seems to me, therefore, that any limitations of time, in concepts of the acts of creation, are neither warranted by science nor demanded by Revelation. Nor, does the text of Revelation, when critically examined, claim that a peculiar life, or vital force, was imparted to, or concerned in the physical organization of the human body. Nor can any technical rendering of the Hebrew text of Revelation be so construed as to include in "the breath of life" anything other than the gentle and fixed rate of motion in the materials of the form of man. The existence of a peculiar life, or vital force, is an assumption made in a remote and non-scientific age, to account for the phenomena of life, as strikingly different from the phenomena of inorganic nature. And the most critical examination of animal or vegetable life, beings, or things fails to disclose any peculiar vital force, or that it is claimed by Revelation. Life is altogether dependent on physical conditions, and is reproduced, multiplied, and perpetuated by orderly laws—conditions of life—which it is the purpose of the present memoir to explain.

The retention of these dogmas, as central ideals of life's processes, has retarded the solution, and the acceptance of the solution when arrived at, of several important problems in physiology.

One of these points is, whether the viscera and textures of living bodies perform their functions (or duties) at the direct expense of their material, as a candle in giving light; or, whether they are permanent, and perform their functions by affording requisite conditions for chemical, or molecular changes, in other material, as a lamp; or, as inanimate machinery, as a watch, recording the lapse of time on its dial, the interior structures remaining intact, or wasting imperceptibly.

This is a fundamental and all-important point in physiology, for whose solution there are accumulated the most ample data without an additional observation or experiment; and a recognition by the profession of the only possible way in which an organic or living structure can perform its function, viz., chemically, and at the direct expense of its special arrangement of materials in forms of organic structure, and not mechanically, as a watch, would sweep away an immense amount of rubbish now lumbering the professional mind. Everywhere in the popular mind, if there is any concept at all on this point, it is that structures are permanent, like land, and that food to the body is as air, sunshine, rain, and guano to land; it is nourished somehow, but in a way which can not be understood. Failure to settle this point is the cause of innumerable shifts in the profession, in its scientific and practical aspects—practical, as longer terms of the schools; mere clinical instruction; experiments with new drugs and medicines, etc., etc. The recent cundurango swindle, had this point been settled, would have been impossible.

Another, and scarcely less important point, remains *incognito*—viz., the means by which the several momentarily wasting structures of a living body are reproduced in physical contour, and peculiar molecular arrangement of materials, determining their function, and to preserve through each individual life, personal identity.

Up to this time no really serious effort has been made, either by observation, direct or indirect experiment, or analogy, to determine this point, other than by referring it vaguely to the operations of the so-called vital forces.

Intimately connected with the determination of these points is another, on which the whole matter really hinges; and that is, what is the main or leading purpose of the several structures composing an individual human body, or other living being or thing, as well as of the body as a whole, during the life of each individual?

In the human body, the assumption has constantly been acted upon that the main purpose of the body was the exhibition of physical, moral, intellectual, and psychological phenomena. To my mind these phenomena are like the flowers of the vegetable world, beautiful incidents only of a greater purpose, viz., providing the means necessary for its own preservation, evolution, and perpetuation.

The human body, for the purpose of investigating this particular point, is far too complex to get even a beginning without some clue to the probable means. And these means must be studied first in the simpler forms of life; and these are found in the vegetable realm of nature. And, as science now demonstrates the unity of material and force throughout organic life on the globe, the means for these ends must have more or less resemblance in both vegetable and animal existences.

In the vegetable world, beyond all doubt, the main purpose of each special form of life is to provide for its own reproduction, preservation, and multiplication; and the means to these ends are, in the main, stored up in what is called a seed or seeds. And with the great bulk of vegetable life—the annuals—the completion, or perfecting of their special means for reproduction, multiplication, and perpetuation, are coincident with the death or decay of the parent plant or plants. With the perennials, these ends, and the decay of their foliage, are annually coincident, though including ultimately the death of the parents. With the annuals, there is a distinct interval of time between the death of the parents, or decay of the parent plants, and the reproduction of their special forms of life from the materials and force stored up in the seed for that special purpose. In the higher animals—that is, more complex—this process, or provision, to whatever it is due, must be continuous during the life of the individual.

Is there any such provision in the human body—the object more particularly of present study—to which physiology now assigns such a function? No, there is not. No such problem has been either broached or studied, observed or experimented about by physiologists, in the past or present.

But, nevertheless, means adequate to these ends exist in what is called the lymphatic system. Lymphatic glands and vessels have now been demonstrated to exist in all the various structures of the human body. Not the least surprising of the results of modern histological inquiry are the facts brought forward by Recklinghausen, Burden-Sanderson, and Klein so recently, that the serous membranes are great lymphatic glands, apparently spread out for our study—unrolled, as it were, that the minute structure of the smaller and more compact glands could here be studied under the most favorable advantages. The extent of functional duty devolving on the intestinal tract necessarily involves a rapid waste of structure, and requires an equally rapid rate of repair, and therefore ought to be abundantly supplied with lymphatic apparatus. This is now amply demonstrated, though to the unaided senses, the number and extent of glands, plexuses, and vessels spread over the intestines are so great as to have led to the inference that their function was to take up the new material introduced into the stomach, and unite it with the blood. And, from the color and consistence of their contents, they are called "lacteals"—milk-carrying vessels. Elsewhere, though identical in histological structure with those in connection with the intestinal tract, they are assigned by physiology a wholly different function, viz., collecting albuminous matters accidentally escaping from the blood-vessels into the meshes of the tissues, which would otherwise be wasted, *i. e.* in the interest of economy of material only.

The lymph, or as it is called, chyle, from the intestinal tract, does not differ, either chemically or physically, from lymph from other parts of the body, except in the presence of fat globules in greater numbers during active digestion. While fasting, the lymph from all parts of the body becomes so nearly identical, chemically and physically, that the very slight differences noted in analysis may be fairly attributed to imperfections of chemical treatment.

Per contra, when the lymphatic apparatus falls into disorder, the resulting condition of the body is called scrofula, or "king's evil," and, with some not very important modifications, "tuberculosis" or "consumption"—a wasting of the structures without being balanced by repair from new materials, notably prominent in the pulmonary structures or lungs, but not confined to them, for the waste of the body keeps pace with that of the lungs.

As the wheat kernel or grain is so intimately associated with the human body, by entering so largely into the food eaten by human beings, and therefore their flesh (in the temperate zones or zones of civilization), it may be not improperly selected as an object for the study of the means of reproduction, multiplication, and perpetuation in the vegetable world. And this will throw more or less light on the means and processes in the animal kingdom.

Scientifically, a grain of wheat must be defined as—

1. Material, necessary for.
2. Storing up the requisite force.
3. To form the structures of the new plant up to that point at

which it acquires the capacity to appropriate other and new material, to the further evolution of its own special type of structure in the vegetable world, and to provide for its own reproduction, multiplication, and perpetuation.

The conditions of its life are as follows: Placed in pulverized soil a certain depth, which soil must have contact with the atmosphere, a certain amount of moisture in the soil, receive the sun's rays, and a range of temperature above a certain point. These conditions properly supplied, the wheat plant is a model of industry and straightforwardness in the accomplishment of its purposes; and when it has perfected the means for its own multiplication and perpetuation, storing up the requisite force in the necessary material in the form of a seed, the plant itself is dead or dies soon after. Between each act of multiplication and perpetuation of its kind, there is a distinct interval of time.

Taking this process for guidance, and returning to the human body, inquiry must be made to ascertain whether any like or analogous provision is apparent in its anatomical arrangements. And it must be borne in mind that to be applicable to the human body, the process must be continuous; for, in it, there is preserved its peculiar forms of organic structure, with changing material through life.

It seems to me that the lymphatic system of the human body exactly fulfills these continuous conditions, and insures, by mingling its material with the new material introduced through the stomach and lungs, that personal identity through life is the undisputed possession of each individual.

By the peculiar arrangement of the portal blood-vessel system, new material, supplied by the solvent processes of the stomach and intestines, enters the venous blood-streams directly, and none at all through the so-called lacteals (lymphatics); then passes into the liver, and is chemically changed, or some portions of new material are chemically changed, and unknown, if any, changes occur in the old venous blood with which it is mingled; then all the blood and the new material mingled with it, is forwarded to the right or pulmonary heart, just before reaching which the lymph from all parts of the body is added. From the right heart this complex stream, containing old venous blood, new material, and lymph, is passed into the lungs to meet the inhaled gases of the atmosphere; further chemical changes occur, some effete materials being detached and passed out of the body with the expired gases, which differ widely in chemical composition from the ingoing atmosphere; and the result of whatever changes takes place in the lungs is a fluid, homogeneous—arterial blood—containing at once the materials and force for the reconstruction of the wasting tissues, wasted in the performance of function, which hastens back through the left heart to the seats of the molecular processes of waste and repair, the capillaries, or minutest blood-tubes.

The lymph is here certainly the analogue (one thing resembling another closely) of the vegetable seed. And the conditions under which each does its work are almost identical, viz., in the midst of material, new and old, moisture, contact with the atmosphere, sun's rays, and a certain range of temperature.

It will be seen, therefore, that the repair of the momentarily wasting structures, in the performance of function, during the life of an individual, so far from being due to the surveillance of a mysteriously ubiquitous "vital force" or police, takes place by orderly processes, which can be understood, and, as I think, demonstrated by physicists, and by the ordinary physical forces, through ordinary organized inorganic matter. There is, after all, only one unsolved mystery or problem in organic life, and that is "forms of organic structure or design." And that in these forms of organic structure are clearly traceable the foot-prints of a GREAT FIRST CAUSE OR CREATOR. And it is further apparent that an organic structure, capable of performing a function, provides for its own reproduction in the act of functional decay, storing up the force for that purpose in one or more of the chemical compounds then formed;* and that the function of the lymphatic system is, as here claimed, to gather up this special material and unite it at the proper place and time with new materials; and that the only proper place in the body is just where this union takes place, viz., just before entering the lungs.

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*The decay of "organic structures," and their "resurrection" or "reconstruction" from new material, as they are wasted by functional duty during the life of each individual, is stated by an inspired writer in the following emphatic words: "*Thou* fool, that which thou sowest is not quickened, except it die. And that which thou sowest, thou sowest not that that body shall be, but bear grain, it may chance of wheat or some other *grain*. But God giveth it a body as it hath pleased Him, and to every man his own body." 1 Cor. xv. 36, 38.

And it is further evident that providing for their own reproduction from new material, and ultimate multiplication and perpetuation, and the principal functions performed by the various structures composing the human body, and all other animal and vegetable existences, while the psychological, intellectual, and moral phenomena, like the flowers of the vegetable world, are incidents merely of this greater purpose of all life—self-preservation, and multiplication and perpetuation of kind.

And it is further evident that out of the decaying materials of the old comes all new life in the organic world. Nor is it accidental, nor merely an arbitrary decree of the CREATOR, that man's spiritual redemption should, by an analogue of the means used, reproduce, multiply, and perpetuate the diversified forms of organic life. That is, again, that the death of JESUS was just what he declared it to be—work finished—the molecular forms of his structures broken up by nails and spear on the crucifix; his blood—the seed, or means for the reproduction, multiplication, and perpetuation, *i. e.* his blood, turned from its purpose in organic life; the *chayyim nâshan*—gentle motion—of his physical structures stilled and reproduction and perpetuation of the GOD MAN impossible. But as HIS SPIRIT parted from his broken body on the cross, a world of HIS kind was spiritually REDEEMED, or the means provided for their redemption. For the salvation of a world of mankind must needs be by a man, and in accordance with the provisions elsewhere for the preservation and perpetuation of all physical life, viz., that by death all life is perpetuated. Physicians have never set bounds or limits to these possible achievements with remedial agents and agencies, in their ministrations to the sick. Yet science now clearly and sharply limits it to modifications of the rate or velocity of molecular changes in the materials of structure, whose unit is simply motion of matter. And as motion of matter—static (held in a state of apparent rest, or equilibrium) and dynamic (actual motion, physical and chemical)—is only susceptible of being advanced, retarded, or modified by modes of force, static and dynamic, stored up in matter, this must be the classification of remedial agencies, if their possible and actual effects are sought to be represented in a classification.

Remedial agencies, including drugs, medicines, and chemicals, must be regarded as matter, storing up force—potential, possible, or static—which, when introduced into the living system, advance, retard, or modify the velocity of motion of material in the actual acts of repair and waste of living structure. As remedial agents they represent force stored up in their material, force static—that is, force possible—which is the living body, becomes force dynamic, or force actual, if any effect whatever is produced.

Toward effecting, if not exactly these, other changes, and I may add my hope, of better ones, looking to the same ends, the profession is now apparently drifting with increasing speed each year. But it must not be overlooked that the obstacles in the way of a speedy realization of them are neither few nor unimportant; so that several generations will probably come and go again before they are effected. Medical gentlemen now, of whatever age, prefixing and suffixing professional and other titular dignities to their names, are not likely to favor any such violent changes, as they would mean either back seats or hard mental work, to change ever from the old to the new order of things. Others enjoying handsome incomes from the *status quo* will deprecate changes for like reasons. Authors, publishers, and educators, with possibly a few exceptions, will, most likely, concur in resisting changes which are not likely to do anything toward bettering their incomes or professional standing. In fact, the channels by which the profession and people can be reached are all full; so that these changes must be worked forward by much outside influence, which is now energetically at work. But when brought about, as they sooner or later will be, medicines will be given, and results predicted and realized, with nearly as much certainty as civil engineers now pierce mountains or span chasms with their tunnels and arches.

As death is the parent of all life, so we may all feel assured that out from among the debris of the decay of the present confusion, will rise order and precision in a science and practice of medicine, whose basis will be the conditions of life.

Art. II.—Of a late Epidemic of Child-bed Fever; together with an Inquiry into the Connection, said to exist, between Puerperal Fever and Erysipelas.

By THOMAS C. MINOR, M. D., Cincinnati, Ohio.

[*Continued.*]

IOWA.—Lying between 40° 30′ and 43° 30′, north latitude, and extending from 91° to 96° of longitude west of Greenwich, is the State of Iowa. A hypsometric sketch of the state shows that most of it has an elevation of from 800 to 2,000 feet above the sea-level. In the extreme eastern portion of the state, along the borders of the upper Mississippi, however, the altitude is less than 800 feet.

At Muscatine (latitude 41° 25′, longitude 91°, altitude 586 feet above tide-water), the mean monthly temperature reads as follows: January, 20.2°; February, 25.5°; March, 34.8°; April, 46.4°; May, 57.9°; June, 66.4°; July, 70.5°; August, 68.9°; September, 62.5°; October, 48.8°; November, 35.4°; December, 22.6°. At Dubuque (latitude 42° 29′, longitude 90° 50′, altitude 680 feet above the sea-level): January, 19.8°; February, 23.3°; March, 35.1°; April, 53.8°; May, 62.3°; June, 69.1°; July, 75.2°; August, 72°; September, 66.3°; October, 52.5°; November, 38.7°; December, 24.5°. The mean quarterly and annual statement reads as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Muscatine...........	46.4°	68.6°	48.9°	22.8°	46.7°
Dubuque.............	50.4	72.1	52.5	22.5	49.4

The quarterly fall of rain and melted snow at Muscatine is as follows: Spring, 11.19; summer, 15.08; autumn, 10.34; winter, 6.72—year, 44.33 inches.

I have no record of the epidemics of the state.

Study of the Table.—Out of a total population of 1,194,020 persons residing in Iowa in the census year of 1870, 85 died from erysipelas. As regards sex, 43 of the decedents were males and 42 females. Of these, again, 74 were native born (73 whites and 1 colored), while 11 were foreign born. During the same period 42 women died of puerperal fever. Of these, 32 were native-born whites, while 10 were foreign-born. The season of greatest mortality from erysipelas was winter (28). The season of greatest mortality from puerperal fever was spring (14). The month of greatest mortality from erysipelas was January (12). The month of greatest mortality from puerperal fever was March (7).

Reflections.—Iowa has a foreign-born population of 204,692.

Roughly calculating the foreign-born population as being one-sixth the total population of the state, we see that less deaths from erysipelas occurred among the foreign-born, in proportion to population, than among the native-born; while, on the contrary, more foreign-born women died from puerperal fever, in proportion to population, than did native-born. Iowa has about the same mortality rate from erysipelas as have the States of Kentucky and Tennessee; while, on the contrary, the puerperal fever deaths in Iowa are at least 100 per cent. less. Compared with some of the Western States having about the same population, it is noticeable that Iowa is not such a sufferer from either disease.

We now turn to Nebraska.

NEBRASKA.—Lying between 40° and 43° north latitude, and extending from 96° to 104° longitude west from Greenwich, is the State of Nebraska. A hypsometric sketch of the state shows that the eastern half of it has an elevation varying from 800 to 2,000 feet above the sea-level, while the western half is still higher, ranging from 2,000 to 4,000 feet. The meteorological observations in Nebraska extend over so short a period, and seem to be so incomplete, that I shall omit them.

I have no record of the epidemiology of the state.

Study of the Table.—Out of a total population of 122,993 persons residing in Nebraska in 1870, 5 died from erysipelas. As regards sex, 2 of the decedents were males and 3 females. All were whites (4 being native born and 1 foreigner—Irish). During the same period, 4 women died of puerperal fever. They were all white and native born. The season of greatest mortality from erysipelas was winter (2). The season of greatest mortality from puerperal fever was spring (3). The mortality from erysipelas did not exceed one at any month. The mortality from puerperal fever was greatest in the month of April (2).

Reflections.—No connection seems to have existed between the two diseases. In proportion to population, the mortality rate from erysipelas is less than in the District of Columbia, while the puerperal-fever rate is about the same.

NEVADA.—Lying between 36° and 42° north latitude, and extending from about 114° to 120° longitude west of Greenwich, is the State of Nevada. A hypsometric sketch of the state shows it to be elevated from 4,000 to 8,000 feet above the level of the sea. Regarding the meteorology and epidemiology of the state, the same remarks applied in the case of Nebraska, apply here also.

Study of the Table.—Out of a total population of 42,491 persons

(32,379 males and 10,112 females), residing in Nevada in the census year of 1870, 2 died of erysipelas. As regards sex, one was a male, the other a female. Both decedents were native-born whites. During the same period, 2 women died of puerperal fever. As regards nativity, one was a German, the other a Scotchwoman. One man died of erysipelas in July; the woman died from erysipelas in February. One of the decedents from puerperal fever died in the month of January; the other died in the month of March.

Reflections.—The statistics of Nevada are only of so much value as regards the altitude at which both erysipelas and puerperal fever prevail. We see that deaths occur from both diseases at elevations varying from 4,000 to 8,000 feet above tide-water.

OREGON.—Lying between 42° and 46° north latitude, and extending from 117° longitude west of Greenwich to the Pacific ocean, is the State of Oregon. A hypsometric sketch of the state shows the eastern and southeastern half of it to be mountainous, having an elevation of from 4,000 to 8,000 feet. The western and northwestern portions of the state are lower, varying, at points, from 800 to 2,000 feet. Along the Columbia river the land, in places, is not elevated more than 400 feet above the sea-level.

At Lapwai (Kooskooskia), in latitude 46° 27′, longitude 117°, altitude 1,000 feet above tide-water, the mean monthly temperature, according to Blodgett, reads as follows: January, 31.8°; February, 38.8°; March, 42.7°; April, 52.8°; May, 57.5°; June, 68.9°; July, 70.1°; August, 72°; September, 64°; October, 48.1°; November, 41.5°; December, 40.4°. At Oregon City (latitude 45° 20′, longitude 122° 30′, altitude 200 feet), as follows: January, 39.6°; February, 42°; March, 45.1°; April, 55.9°; May, 60.9°; June, 66.3°; July, 72.3°; August, 71.9°; September, 61.2°; October, 55.8°; November, 47.2°; December, 39.1°. The temperature, by seasons and annually, would read, at these stations, as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Lapwai...............	51°	70.3°	51.2°	36.9°	52.4°
Oregon City........	54	70.2	54.7	40.2	54.8

At Astoria, the mean fall of rain and melted snow is as follows: Spring, 16.43; summer, 4.00; autumn, 21.77; winter, 44.15—giving a mean annual of 86.35 inches.

Assistant Surgeon Israel Moses,* speaking of the diseases of Astoria (1852), says: "Five cases of erysipelas occurred, one in October, two in November, and two in December," etc. From this it will be seen that the disease is not unfrequent in Oregon.

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* Government Reports.

I have no record of the epidemiology of the state.

Study of the Table.—Out of a total population of 90,923 persons residing in Oregon, in the census year 1870, 5 died from erysipelas. As regards sex, one of the decedents was a male, the four others females. They were all native-born whites. During the same period, 2 women died of puerperal fever. These likewise were native-born whites. The season of greatest mortality from erysipelas was spring (3). The seasons of greatest mortality from puerperal fever were summer and winter (1 each). The month of greatest mortality from erysipelas was May (3). One death from puerperal fever occurred in June, the other in January.

Reflections.—It is barely possible that a slight epidemic of erysipelas may have prevailed in May. If there was, however, no connection existed between the cases of erysipelas and those of puerperal fever.

We now turn to California.

CALIFORNIA.—Extending along the Pacific, with a coast-line about 750 miles in length, and having an average width of 200 miles, from about 32° 15′ to 42° north latitude, and from 114° to 124°, at points, longitude west of Greenwich, is the great State of California. The western border of the state, adjoining the Nevada and Oregon lines, is of course mountainous, and altitudes of 8,000 feet and more above tide-water are not uncommon. In the middle portion of the state the ground becomes lower, and the central towns of Marysville, Folsom, Lincoln, Sacramento, and Stockton lie, spread out in this lower valley, as it were. West of this, again, is more mountainous country, and then the low, narrow coast-line. At some of these interior points, along the Sacramento river, for instance, the country has no higher altitudes than 400 to 800 feet. In the southeastern portion of the state the altitude will average from 4,000 to 8,000 feet. So much for a rough hypsometric sketch.

According to Blodgett, the mean monthly temperature at Fort Jones (latitude 41° 36′, longitude 122° 52′, altitude 2,570 feet above the sea-level) reads as follows: January, 31.4°; February, 37.4°; March, 43.1°; April, 49.3°; May, 54.7°; June, 61.5°; July, 71.5°; August, 68.7°; September, 62.7°; October, 51.8°; November, 41.8°; December, 32.5°. At Sacramento (latitude 38° 34′, longitude 121° 40′, altitude 39 feet above tide-water): January, 44.9°; February, 52.1°; March, 55°; April, 59.7°; May, 63.4°; June, 71.7°; July, 76.1°; August, 71.2°; September, 69.7°; October, 65.3°; November, 52.9°; December, 47.3°. At San Francisco (latitude 37° 48′, longitude 122° 20′, altitude 50 feet above the sea): January, 50.1°; February, 52.9°; March, 54.5°; April, 58.6°; May, 57.8°; June, 58.6°; July, 59.8°; August, 60.9°; September, 61.5°; October, 61.7°; November, 57°; December, 51.5°. At Fort Yuma (latitude 32° 43′, longitude 114° 36′, altitude 120 feet above tide-water): January, 56.4°; February, 58°; March, 66.1°; April, 73.5°; May, 76.7°; June, 87.3°; July, 92.3°; August, 90.3°; September, 86.1°; October, 76.5°; November, 64.4°; December, 55.9°.

The mean quarterly and annual temperature, at the points before named, is as follows:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
Fort Jones..........	49°	67.3°	52.1°	33.8°	51.4°
Sacramento.	59.4	73	62.6	48	60.7
San Francisco.....	57	60.1	60.1	51.5	57.2
Fort Yuma.........	72.1	90	75.7	56.8	73.6

The mean quarterly and annual fall of rain and melted snow at various points:

STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
San Francisco.....	7.56	0.09	2.96	11.34	21.95
Sacramento.........	5.91	0.32	1.66	8.28	16.17

In a most able report,* written by Dr. Hatch, of Sacramento (p. 349), this gentleman says of erysipelas: "As an epidemic, this disease has not often presented itself in our valley-sections of the state, though cases have frequently occurred sporadically. There have been only two exceptions within our knowledge. First, in 1862, soon after the great flood, when the condition of the atmosphere seemed to be peculiarly favorable to its development, particularly in its traumatic form, cases occurring after the most trivial wounds, and even as a result of vaccination. Variola was epidemic at the same time. Again, during the past year, a large number of cases presented themselves, the disease assuming for a time the proportions of an epidemic," etc. No mention is made of puerperal fever epidemics.

Study of the Table.—Out of a total population of 560,247 persons residing in the State of California (census year 1870), 37 died of erysipelas. As regards sex, 24 were males and 13 females. Of these, 28 were native-born whites, while 9 were foreigners. During the same period, 13 women died of puerperal fever. Of these, 1 was a native-born white, while the other 12 were foreigners. The seasons of greatest mortality from erysipelas were spring and autumn (12 each). The seasons of greatest mortality from puerperal fever were summer and winter (5 each). The month of greatest mortality from erysipelas was November (7). The month of greatest mortality from puerperal fever was January (4).

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* Report on Climatology and Diseases of California. By F. W. Hatch, A. M., M. D., Sacramento, Cal. Transactions American Medical Association, Vol. XXXIII, 1872.

Reflections.—California has a total foreign population of 160,225, from whence it will be seen that more native-born than foreign-born die of erysipelas; while, on the contrary, the deaths from puerperal fever occur almost wholly among the foreign-born. No connection seems to have existed between the two diseases, the greatest mortality from both having occurred at different seasons. It will be noticed, that notwithstanding the dryness of a California climate, both diseases prevail to some extent even at those seasons when the rain-fall is only measured by fractions of inches (summer, for instance). The fact that no death among the Chinese population of the state from either disease is mentioned, is worth remembering.

EN RESUME.—With a population of over 17,000,000 people, this western section, of which we have just finished the details, stretches out a gigantic territory, from 82° to 122° west of Greenwich and spreads over ten degrees of latitude, *i. e.*, from 35° to 45°. We have given short notes of numerous epidemics of erysipelas and puerperal fever which have occurred from time to time in different portions of this section, often at isolated points.

Study of the Table.—The western section just described suffered a total loss, in 1870, of 1,520 persons from erysipelas. As regards sex, 790 of the decedents were males and 730 were females. During the same period, 923 women died of puerperal fever. The season of greatest mortality from erysipelas was spring (456). The season of greatest mortality from puerperal fever was spring (311). The month of greatest mortality from erysipelas was March (173). The month of greatest mortality from puerperal fever was February (106).

Reflections.—Both diseases prevailed together at the same seasons. The greatest mortality from puerperal fever, in February, was followed by the greatest mortality from erysipelas in March. The isothermals of 45°, 50°, and 55° show the mean distribution of heat through this section during the spring months, the time when the greatest mortality from both diseases occurred. In the western territories which I have not tabulated, 26 deaths occurred from erysipelas. As regards the decedents, 10 were males and 16 were females. Sixteen women died in the territories from puerperal fever also. If these deaths just given, be now added to the table of mortality in the states, the figures, it will be seen, will correspond exactly with the total footings given in the ninth census, and the table is therefore correct.

We shall now proceed to give a general recapitulation of all we have gone over in detail, studying, as we proceed, the natural history of both diseases, the effect of climate, altitude, etc., upon them.

RECAPITULATION.

We have now fully described the 3,162 fatal cases of erysipelas, and the 1,828 fatal cases of puerperal fever, which occurred in the United States in 1870. No general epidemic of either disease seems to have prevailed. Here and there, to be sure, we have noticed what might seem to be small outbreaks at localized points; but, taking all things into consideration, we must consider that the bulk of our cases was sporadic.

We compile the following from table 6, ninth census, showing the months at which the total mortality is noted:

MONTHS.*	ERYSIPELAS.			PUERPERAL FEVER.
	Males.		*Females.*	
January	131	+	133	183
February	153	+	142	198
March	207	+	144	234
April	166	+	154	201
May	169	+	139	206
June	123	+	111	89
July	88	+	95	95
August	107	+	117	105
September	106	+	121	141
October	132	+	117	122
November	122	+	107	125
December	145	+	132	127
Total	3,162			1,828

From this table we see that more men than women die of erysipelas. The month of greatest mortality from erysipelas among men was March (207). The month of greatest mortality from erysipelas among women was April (154). The most deaths occurred from puerperal fever in March (234). This same month had also the most fatal cases of erysipelas (351). From the mortality statistics of the eighth census* (1860), we learn that, "Erysipelas was most destructive in the winter, and then 56 per cent. more than in summer. Winter and spring had similar proportions, and also summer and autumn. May was the most fatal month, exceeding July by 97 per cent." Jarvis says, also, in relation to puerperal fever: "Puerperal fever was also most fatal in winter and spring. This, with the other dangers of childbirth, destroyed nearly one-third its victims in the quarter from January through March, and three-tenths in the quarter next following. Summer was most favorable: its proportion of deaths from these causes being but little more than half of that in the colder season. Autumn was more dangerous than summer, but much less than spring." The conclusions of 1860 were not altogether sustained by those of 1870, although they agree in some few points. The most fatal season in 1870, from erysipelas, was spring; the most fatal month was March. In regard to puerperal fever, the tables of Jarvis, in 1860, are *fully confirmed by my table of* 1870.

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* In the above table there is one death from erysipelas, month unknown, and two deaths from puerperal fever, months unknown.

NATIVITY.—The nativity of the decedents from both diseases is not uninteresting. A compiled table gives us the following:

NATIVITY.	ERYSIPELAS.	PUERPERAL FEVER.
Native-born whites	2,691	1,193
Native-born colored	115	206
Indians	1	2
Unknown	9	2
Germany	107	163
Sweden, Norway, and Denmark	10	20
Ireland	124	174
England and Wales	46	19
Scotland	15	4
France	8	6
North of Europe	7	8
South of Europe	3	10
All others	26	21
Total	3,162	1,828

It is very evident that neither our African, European, nor Indian population are entirely exempt from either disease. Our Mongolian population, in the meantime, seems to enjoy a perfect immunity. Our total foreign-born population numbers 5,567,229 persons, of whom 3,006,943 are males and 2,560,286 females. It will be seen, from this statement, that about one out of every 16,000 foreigners dies of erysipelas, and that out of the entire female foreign population, about one out of every 6,000 dies of puerperal fever. The United States has, according to the last census, a total native-born population of 32,991,142. Of these, 16,486,622 are males and 16,504,520 are females; from whence it will be seen that one out of every 12,000 native-born persons dies of erysipelas, and that out of the entire female native population, about one out of every 12,000 dies of puerperal fever. Thus, it is very evident that there is much less erysipelas among the foreign-born than among the native-born; while, on the contrary, at least 100 per cent. more deaths from puerperal fever occur among the foreign-born than among the native-born. Another curious fact is the slight mortality from erysipelas among the colored population. In 1870, our entire colored population numbered 4,880,009 persons, of whom 2,393,263 were males and 2,486,746 females. From this, it will be seen that only one colored person in 39,000 died from erysipelas, and taking the entire female colored population, about one out of every 12,000 died of puerperal fever. The *native white population* of the United States is 28,095,665. Of this number 14,086,509 are males and 14,009,156 are females. From this, it will be seen that one native-born white out of about every 10,500 dies of erysipelas, while one out of every 11,800 native-born white women dies of puerperal fever. It will be seen, from this rough statement, that the colored population suffers less from puerperal fever than the white, and that three whites die from erysipelas where one black dies, taking them at the same relative proportions to the whole population.

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* Mortality and Miscellaneous Statistics. By Edward Jarvis, M. D., Dorchester, Mass. Eighth Census of United States, Washington, 1866, p. 266.

This fully confirms Dr. Jarvis' conclusions in regard to the greater prevalence of both erysipelas and puerperal fever among the whites. The tables of 1870 confirm those of 1860. The opinions of Dr. Jarvis, moreover, confirmed those of Major-General Alexander Tulloch, who, for a period of twenty years (1817 to 1826), gives the mortality among the white and colored soldiers stationed in the West Indies, at English military stations. (Refer to Eighth Census, page 281 to 283 inclusive.)

In a general summary* of the sickness and mortality occurring among white troops during the late war we glean the following, which can be compared with the sickness and mortality from erysipelas and mortality among colored troops. We have arranged the figures in the order they are given in the report. It is left to the reader to work out the difference in the percentage among whites and blacks from the single cause of erysipelas, figures regarding puerperal fever of course being out of the question:

SICKNESS AND MORTALITY AMONG WHITE TROOPS.

Mean strength in field and garrison, May and June, 1861	41,556
“ “ “ general hospitals	
Cases of erysipelas	65
Deaths	3
Mean strength in field and garrison, year ending June 30, 1862	279,371
“ “ “ general hospitals	9,548
Cases of erysipelas	2,652
Deaths	120
Mean strength in field and garrison, year ending June 30, 1863	614.325
“ “ “ general hospitals	45,630
Cases of erysipelas	6,728
Deaths	812
Mean strength in field and garrison, year ending June 30, 1864	619,703
“ “ “ general hospitals	55,710
Cases of erysipelas	6,507
Deaths	412
Mean strength in field and garrison, year ending June 30, 1865	574,022
“ “ “ general hospitals	71,484
Cases of erysipelas	6,456
Deaths	494
Mean strength in field and garrison, year ending June 30, 1866	99,080
“ “ “ general hospitals	2,817
Cases of erysipelas	868
Deaths	19

Giving a total of 23,276 cases of erysipelas and 1860 deaths therefrom, in an army having a total mean average strength of 431,237 white men in the field and garrison, and 37,038 white men in the general hospitals of the country during the years enumerated. The following additional figures, giving a summary of the cases of erysipelas and mortality therefrom, among the colored troops of the Federal army. It will be noticed that the records of colored troops do not date back further than July, 1863:

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* Medical and Surgical History of the War of the Rebellion, Part I., Washington, 1870, p. 636 et seq.

SICKNESS AND MORTALITY AMONG COLORED TROOPS.

Mean strength in field and garrison, year ending June 30, 1864	43,952
" " " general hospitals	1,222
Cases of erysipelas	542
Deaths	61
Mean strength in field and garrison, year ending June 30, 1865	83,571
" " " general hospitals	5,572
Cases of erysipelas	666
Deaths	161
Mean strength in field and garrison, year ending June 30, 1866	55,039
" " " general hospitals	1,578
Cases of erysipelas	328
Deaths	25

Giving a total of 1,536 cases of erysipelas and 247 deaths therefrom, in an army having a total average mean strength of 60,854 colored men in the field and garrison, and 2,791 colored men in the general hospitals of the country, during the years enumerated.

A close study of these tables will enable one to discover that the army records of the late war tend to overthrow the theory that erysipelas is more prevalent among the whites than among the blacks, that is, in *war times.* Without doubt the bulk of all these cases had, for a primary cause, some local lesion in the shape of gunshot wounds, etc., or operations following injuries received in the battlefield. The overcrowding of hospitals, and other causes which might go toward developing any epidemic erysipelatous tendency, had full sway; and it is hardly fair to compare the mortality statistics of an army during time of war with that of an army in time of peace. The soldier who has a leg or arm amputated, as a primary shock, and suffers, in addition, from the secondary shock of an erysipelas of the stump, dying under such a combination of circumstances, the result is not attributed to the accident but to the disease. For this, and for several other reasons, which it is needless to mention at this point, I am inclined to favor the theory, that under all *ordinary* circumstances, erysipelas is much more prevalent among the whites than among the blacks, and that the figures adduced by Tulloch in his English army reports, and by Jarvis from the figures given in the eighth census, together with the statistics regarding the subject compiled by myself from the ninth census, give ample support to the theory, notwithstanding the figures to the contrary, just quoted from the "History of the War of the Rebellion." It is only fair, however, that the latter should be given.

THE RELATION OF CLIMATE TO THE TWO DISEASES.

In approaching this subject it is necessary to remember that a certain caution and reserve must be maintained. In this connection the wise advice of Jules Rochard* should not be forgotten. In his elaborate monograph on climate, Rochard remarks: "In order to understand to what slight degree the study of climatology has advanced, it is sufficient to glance rapidly over the globe, and to compare the small number of points we know to the immense extent of new country still to be observed. These obstacles are not those which an individual effort can surmount; these are the facts which are wanting; and, in order to collect them, time, and the patient co-operation of a great number of observers, is necessary. In waiting, that this work may be accomplished, scientific probity makes it a duty to approach these questions only with an extreme caution; for, in hygiene, as in pathology, in all that which touches the study of man, ten gaps are worth more than one error." These remarks of Rochard may apply especially to the United States; for, in the absence of conclusive information, and more voluminous statistics regarding this special subject, and of the effects of climate on erysipelas and puerperal fever, the writer advances, with extreme reserve, the opinions hereinafter expressed.

Let us see, first, whether either of the two diseases has a geographical limit; for, if so, it would seem as if climate must have some effect on them. Says Boudin:† "Every country has its diseases, as it has its flora and its fauna. The diseases, like the plants, have their homes, their stations, their geographical limits." This idea may be true, and it may not be. The diseases to which certain limits have been clearly defined are but few in number; as, for instance, yellow fever, cholera, typhus, and various forms of intermittents. In consulting Boudin further (chap. 3, tome 2, p. 243 et seq., Statistiques des Maladies Consideres, comme Cause de Déces dans Divers Pays), we are led to wonder where the geographical limits of erysipelas and puerperal fever are. Thus we see that in Iceland, whose northern border touches the imaginary "arctic circle," at 65° north latitude, that from 1827 to 1837, according to Boudin's tables, 102 women died from puerperal fever and 6 persons only from erysipelas. At Reykiavik (latitude 64° 08′, longitude 21° 55′, altitude 50 feet), the mean annual temperature for fifteen years (1823–1837), according to Blodgett, was 39.3°. If a low temperature is necessary for the production of erysipelas, most certainly in that case that factor was present, and yet we see only six deaths from erysipelas in ten years. It may be that the heading, "puerperal diseases," does not cover any cases of puerperal fever. This is possible, but not probable; for we see that in Copenhagen (north latitude 55° 41′), and having a mean annual temperature of 46.6° F., that from 1840 to 1844, 77 women died from puerperal fever and 26 persons from erysipelas. So much for the extreme northern latitudes. Let us now turn southward.

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* "Climat," Nouveau Dictionnaire de Medicine and de Chirurgie, Tome VIII, p. 49 et seq.

† Traité de Geographie et de Statistique Médicales, et des Maladies Endemique. J. Ch. Boudin, Paris, 1857.

At St. Helena, south of the 10th parallel of south latitude, and off the western coast of South Africa, we see that in the years 1826, 1827, 1831, 1832, 1833, 1835, that three persons died of erysipelas and five women died of puerperal fever, out of a population of 4,500 persons. It would be interesting to know, in this connection, whether these decedents were native born or not; nevertheless, the fact remains obvious, that in the latitudes of South Africa persons die of both erysipelas and puerperal fever, and this in a tropical temperature. Again, Dr. Rey* remarks, speaking of the diseases of the Antilles: "Erysipelas is a frequent and endemic disease. It foreruns elephantiasis, which ordinarily progresses by erysipelatous explosions." Again, we are led to wonder where the geographical limits of erysipelas and puerperal fever may be. Leaving to some more able investigator the solution of this problem, we shall look at the two diseases as they are in the United States.

In all climates, from that of Maine, Michigan, and Minnesota, to that of Florida, Louisiana, and southern California, we see that, in every state and territory, erysipelas and puerperal fever prevail to a greater or less extent. That some sections of our country suffer more from one or the other of the two diseases can not be denied. That influences of climate, altitude, and topographical position modify, to a certain extent, the violence of the two diseases in various sections is not to be gainsaid, or else why should there be, under ordinary circumstances, and in the absence of any epidemic tendency, more erysipelas in New England than in the South, and more puerperal fever in the latter, again, than in the former?

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* Article, "Geographie Medicale," Dictionnaire de Medicine et de Chirurgie, Tome XVI, p. 78. H. Rey.

Speaking of puerperal fever, Jarvis remarks (Eighth Census, p. 248): "Puerperal fever was fatal in 520 cases, in a ratio of 4.04 per cent., in 1850. It caused the death of 1,202 females—a ratio of .71 per cent. of the total mortality of that sex, in 1860. The ratio varied greatly in the different parts of the country. It was the lowest (25 per cent.) in New England and New York. It was the highest in Mississippi, Louisiana, and Texas, and but little less (1.11 and 1.16 per cent.) in South Carolina, Georgia, Florida, and Alabama, and in Kentucky, Tennessee, and Missouri. It was .92 per cent. in Delaware, Maryland, District of Columbia, Virginia, and North Carolina; and .66 per cent. in Ohio, Indiana, Illinois, Iowa, and Kansas; .42 per cent. in New Jersey and Pennsylvania; and .52 per cent. in the Northwestern States. Climate seems to have a manifest influence in generating this disease. The ratio was more than four times as great in the southern as in the northern Atlantic States, and about two and a half times as great in the Northwest as in the Southwest. In all latitudes, the western ratio was higher than the eastern. In the northern districts this difference was 100 per cent., diminishing toward the south to an excess of about 11 per cent. in the western over the eastern Gulf States. In California, Oregon, and the territories, the ratio was low—.27 per cent of female mortality," etc.

Taking the 36° of north latitude as a grand central axis, we see that in the states lying north of this parallel there is a population of about 29,500,000; south of this parallel, a population of about 9,000,000. Calculating in the same way, about 2,640 persons died of erysipelas, and 1,312 of puerperal fever, north of 36° of north latitude. Now, taking the difference between these mortality figures and the total mortality, we see that 522 persons died of erysipelas, and 516 persons of puerperal fever in the states lying, for the most part, south of the 36th parallel. On a rough computation, then, one person out of every 11,174 living north of 36° died of erysipelas; while in the same northern division, one woman out of 22,484 of the aggregate population died of puerperal fever. South of the 36th parallel, we see that one person out of every 17,245 died of erysipelas, while one woman out of every 17,441 of the aggregate population died of puerperal fever.

It is seen from this, that a conclusion previously arrived at, in speaking of the Southern States, is again verified. Taking the 36th parallel, we see that north of it erysipelas increases and puerperal fever decreases. South of 36°, erysipelas decreases while puerperal fever increases. A point here presents itself: Is this decrease of erysipelas in the South due to climatic influences? We have before noticed the comparative immunity of the colored population from erysipelas. When we take into consideration the fact that the bulk of our colored population live in the southern section, we are led to wonder if our southern white population do not suffer just as much from erysipelas as their more northern white friends?

Here is a chance to verify a theory previously advanced. If these descendants of an African slave population, coming from a country whose mean annual temperature is 70° F. and upward—from a country where, although puerperal fever and erysipelas do exist, we have no records of epidemics of these diseases to show, and where we have reason to believe the tendency to erysipelas and puerperal fever *is much less than in temperate latitudes*, is there not reason to believe (we repeat our theory), that these immigrants, coming from torrid climes, brought with them no erysipelatous diathesis, so to speak?

We shall now see what influence heat and cold seem to have on the two diseases as they prevail in the states. For convenience sake we shall take the 40th parallel of north latitude for a boundary line. In the spring months the mean distribution of heat in the states north of the 40th parallel is marked by the isothermals of 40°, 45°, and 50°; while the isothermals of 55°, 60°, 65°, and 70° cross the more southern states. The isothermal of 40° crosses in the neighborhood of Bangor, Maine, while the isothermal of 70° crosses the states near St. Augustine, Florida. In the winter months the mean distribution of heat, north of the 40th parallel, is marked by the isothermals of 20°, 25°, and 30°; while the isothermals of 35°, 40°, 45°, 50°, and 55° cross the south. The isothermal of 20° is near Bangor, Maine, while 55° is near St. Augustine, Florida.

Now, if we take into consideration the fact that, in the *absence of any general epidemic tendency*, both puerperal fever and erysipelas are diseases most prevalent in winter and in spring throughout all parts of the United States, we shall see that a temperature varying from 20° to 70° does not seem to particularly influence either disease—20°, it will be noticed, is the winter minimum, while 70° denotes the spring maximum; the minimum being in the latitude of Maine, the maximum in the latitude of Florida.

If we now look at the mean distribution of heat in summer and autumn, the period of least mortality from both diseases, we shall note the following facts: In summer, the isothermals of 65° and 70° cross the states lying north of the 40th parallel of north latitude, while those of 75° and 80° cross the south—65° crosses in the neighborhood of Bangor, Maine; 80° near St. Augustine, Florida. In the autumn, the isothermals of 45° and 50° cross the states lying north of the 40th parallel, while the isothermals of 55°, 60°, 65°, and 70° cross the southern states—45° crosses in the neighborhood of Bangor, Maine; 70° in the neighborhood of St. Augustine, Florida. Here it will be noticed that the autumn minimum temperature of 45° in northern Maine is faced by the summer maximum of 80° in Florida. It is very evident from all this, that when the mean distribution of heat over the United States ranges from 70° to 80°, that under the influence of this high temperature the tendency toward erysipelas and puerperal fever is checked—that is, in the absence of any epidemics; for local epidemics of both diseases have occurred in summer time, the season of highest temperature, although it may be that the seasons when such local epidemics occurred may have been cold seasons.

Thermometrical observations carefully kept up during times of epidemics, if not at all times, would certainly be valuable in this connection.

It must not be forgotten, in the meantime, that various other influences besides heat seem to modify these diseases. We shall speak of these anon. At this point, to show the temperature at periods of greatest mortality from both diseases, the following table is arranged. The stations of maximum and minimum mean monthly temperature have been selected, in each state, at the month the greatest mortality occurred. This statement is based on the census figures of 1870. It will show the extreme ranges of the thermometer during the periods of the greatest prevalence of the two diseases. Let us first take the New England States:

STATIONS.	MONTHS OF GREATEST MORTALITY.		MAXIMUM AND MINIMUM TEMPERATURE.			
	Erysipelas.	*Puerperal Fever.*	*Erysipelas.*		*Puerperal Fever.*	
Maine	April.	April.	35°	42°	35°	42°
New Hampshire.	March.	....	30	33	...	...
Vermont	September.	April.	53	59	38	42
Massachusetts.....	January.	January.	24	29	24	29
Rhode Island......	September.	July.	60	63	70	71

[TO BE CONTINUED.]

Art. III.—Steam Treatment of Catarrh of the Middle Ear and Diminished Secretion of Cerumen.

By A. M. WHITEHEAD, M. D., Springfield, Ohio.

During the past year I have treated a number of cases of catarrh of the middle ear and diminished secretion of the ceruminous glands; and without giving a full report of the treatment of these cases, I will make a few statements relative to the efficacy of the vapor of warm water applied to the cavity of the tympanum by means of the Eustachian catheter, for diminished secretion of the ceruminous glands.

The first case treated was a man aged forty years, whose hearing had been impaired about ten years. Upon examining the external ear the auditory canal was found abnormally dry, with a congested and thickened condition of the membrana tympani. The dryness was not artificial, as no instrument or syringing had been used to remove the wax. I supposed that the diminished secretion was caused by disease of the more deeply situated parts of the ear, and the vapor of warm water was applied to the middle ear of the right side by means of the catheter, and the air-douche was used for the ear of the left side. After treatment for one week the secretion of cerumen of the right side was increased to as much as would be expected in a normal condition of the parts, while the secretion of the left side remained unchanged until the steam was used, having the same effect to increase the secretion of cerumen as upon the right side

The result of the treatment of this case, with a number of other similar cases which have come under my charge during the past year, has led me to regard steam applied to the cavity of the tympanum as a valuable remedy, not only for catarrh and impaired hearing, but for diminished secretion of the external auditory canal. I also think it confirms to some extent the prevalent idea that affections of the internal ear are connected with the diminution of the secretion of cerumen; that there is a physiological unity of the parts, and that they stand in dependence one upon the other.

Proceedings of Societies.

MASSACHUSETTS STATE MEDICAL SOCIETY, ETC.

BOSTON, MASS., *June* 8, 1874.

The annual meeting of the Massachusetts Medical Society was held last week. As there was no disturbing element to mar the occasion, the meeting passed off very quietly, although the attendance was large and the proceedings interesting.

At 10 o'clock, on Tuesday, many members of the society visited the Massachusetts General Hospital and the City Hospital. They were received by the superintendents and shown through the various wards, where the most noteworthy cases among the patients were exhibited and the methods of treatment explained. Several important operations were performed before the visitors.

At 12 o'clock, the society met at the Lowell Institute, when papers were read on the following subjects:

Dr. James O. Whitney, of Pawtucket, read a paper on *Dilated Kidney*, giving the history of a case which he had successfully treated, and collating various methods of treatment of this disease.

Dr. Douglass Graham, of Boston, gave an account of the value and methods of applying *Massage*, a treatment combining rubbing, kneading, percussion, etc. From his experience he had found wonderful effects in cases of rheumatism, lumbago, and diseases of a kindred nature.

Dr. Thomas B. Curtis, of Boston, read a valuable paper on *Cottonwood Dressings.* He related a history of the discovery of the application of cottonwood as a dressing for wounds, spoke of its value, and explained at length its use.

Dr. Edward P. Hurd, of Newburyport, discussed the *Germ Theory of Disease*, collating all of the most valuable opinions on the subject of those who have given it the most study, making a very elaborate and interesting paper.

At 2 o'clock, the society adjourned for one hour, when it came together and listened to papers by Dr. Silas D. Presley, of Taunton, on *Chronic Cervical Endometritis;* by Dr. Francis W. Goss, of Roxbury, on the *Dressing of Wounds;* and by Dr. J. Baxter Upham, of Boston, on *Reflections on the late Epidemic of Cerebro-Spinal Meningitis in Massachusetts.*

These papers were all interesting and provoked considerable discussion. The latter paper, by Dr. Upham, is based upon his report of the epidemic of 1873, published by the State Board of Health, where his deductions are drawn from more than five hundred cases, reported from various parts of the state.

During the afternoon, many members availed themselves of the opportunity of visiting the Warren Museum, the Ware Museum of Natural History, the Museum of the Natural History Society, the Children's Hospital, and the Abattoir at Brighton.

On the second day the society met at 10 o'clock, Dr. George C. Shattuck presiding. It appears from the records that 73 new members have been admitted to the society during the year and 35 have deceased. The treasurer's report shows that the amount received during the year was $7,742.06, the expenses were $7,837.57, leaving a balance due the treasurer of $95.51. The society has property to the amount of $30,420.17, consisting of legacies at interest.

Following the transaction of some routine business, the following papers were read and discussed:

One by Dr. Edward Cowles, superintendent of the City Hospital, on the *Treatment of the Sick in Tents and Temporary Hospitals*, in which he argued the adoption of the latter instead of stone and permanent hospitals, on the ground that much better health is secured to the patients than by confinement in buildings, which by long occupancy and use as hospitals have become permeated with disease, which give rise to a distinct class of diseases peculiar to hospitals of long standing. The discussion that followed on the subject developed no adverse opinions to those advanced by the essayist.

The next paper was by Dr. Henry Clarke, of Worcester, on the *Surgical Treatment of Empyema*, which was replete with citations of cases illustrating his treatment of the disease.

The closing essay was by Dr. James R. Chadwick, of Boston, on *Transfusion.*

At 1 o'clock, the annual address was delivered by Dr. Nathan Allen, of Lowell, whose theme was "*The Medical Problems of the Day.*" The following is a brief abstract, as reported in one of our local journals:

He discussed at length several topics, among which were State Medicine, Public Hygiene, Physical Development, Mental Culture, the Temperance Question, the Position of Woman, and the Law of Human Increase.

He reflected upon the change which is gradually taking place in the organization of New England people, the larger classes of diseases to-day arising from general debility, indigestion, scrofula, neuralgia, etc., which change indicates the existence of less muscle, more nerve, less power of endurance, but more mental activity. The nervous temperament is becoming too prominent for other parts of the body, and as a consequence there are more diseases of the brain and nervous system, more sudden deaths from apoplexy, paralysis, and also from diseases of the heart. The average duration of life may as a whole be longer, but this arises from less exposure, better care, and improved medical treatment.

This is due to less physical exercise and more exercise of the brain, the change in the construction and heating of houses, causing a higher temperature, general style of living, etc., which, with other causes, have exerted a pernicious influence on the female constitution, and so upon the laws of inheritance.

When educators become convinced that physical development in education is necessary, then the brain will not be cultivated so much at the expense of the body. Some time there will be a correct and established system of mental science based on physiological laws. A great work of observation, induction, and further discoveries as to the functions of the brain remains to be completed, and in no small proportion it must come from observations, labors, and contributions of medical men.

Before the temperance reform can be carried on very successfully, the exact relations of alcohol to health and disease must be better understood and positively settled. He enlarged on the evils of intemperance, terming it indubitably one of the most powerful causes of physical degeneracy now in operation, and said if to alcohol we add tobacco, opium, and other stimulants and narcotics, no pen can describe the terrible injuries which they inflict upon the human race. The permanent effects are the seeds of evil tendencies and diseases, which are transmitted to successive generations.

With reference to the position of woman, he said that new questions have sprung up for consideration in respect to the rights, the employments, and position of woman. In settling the points involved in the questions of "Woman's Rights," the physiological bearings and tendencies should receive primary consideration. There is need of reform in the dress and early physical training of girls, and women should have the advantages of higher education, and the highest culture, physical and mental, consistent with her nature, but that she should share equally with man in all the strife and competition of business, in the excitement and rivalry connected with political and public life, including suffrage, is physiologically an unnatural, abnormal violation of the laws of her physical system.

Dr. Allen continued the discussion of the position of women at some length, and closed by expressing his familiar views concerning the "Law of Human Increase."

The Fellows of the Society, with invited guests, in all about 700, sat down to the anniversary dinner in Music Hall. From the activity displayed at the tables, one might conclude that surgery was the forte of most of the members, judging from the dextrous use of the knife.

After the physical nature had been satisfied, sentiment, speeches, music, and poetry followed. From the tones of the speeches, and the good feeling that prevailed, it is evident that the society was never more prosperous, its members more united, and that it never stood higher than at the present time. It will be seen that the essayists, most of them, are among the younger members of the society. This has been the custom, for a few years, to bring out this class of the profession.

There seems to be quite a mania at present among persons of phthisical tendencies to drink fresh beef-blood from the Brighton abattoir. I am told that at times there are more than one hundred persons in attendance to quaff the hot, gushing blood as it ebbs out of the life of the slaughtered victims. What results have thus far attended this method of treatment remains for the future to determine.

The annual report of the city registrar for 1873 contains some items of interest, touching the births, marriages, and deaths in the city of Boston. I give you a synopsis of the report, as prepared for the Boston *Daily Journal:*

BIRTHS—Registered during the year 1873 were 9,688, an increase of 418, or 4.51 per cent. over the number recorded in the preceding year, a ratio of one birth in 28.55 of the population. The number of births in 1872 exceeded those in 1871 by 8.36 per cent., which were double the number of any one year within the previous twenty years. The ratio of the births in the state at large is one birth to 36.50 of the whole population. The number of births in the city to each one thousand of the population was 35, while in the state at large it was 28. The number of still-births during the year was 515; if these are added to those born alive, the ratio will appear as 36.89. The daily average of living births was 26.54; including the still-births, the average was 28.

The number of children of native parentage exceeds those of Irish nativity by 948, an excess of 40 per cent. The whole number of children of American parentage, including half of those recorded as unknown, was 2,338, or 24.13 per cent. of all the births. The number of native fathers was 3,094, or 31.94 per cent. of the whole number. The number of instances in which one or both parents were native born, including half of those whose nativity was unknown, was 4,040, or 41.70 per cent. of the entire number. It will thus be seen that 58.30 per cent. of the children are of foreign parentage.

Nearly 28 per cent. of the births occurred in the last quarter of the year, and 54.36 per cent. in the last half of the year; 56.34 per cent. occurred in Wards 1, 2, 7, 12 and 15, which contain 4.6 per cent. of the entire population.

The number of colored children born was 132, being in the ratio of one birth in 27.27 of the colored population, or 36.66 births to each 1.000 of that class. The births of white children were in the ratio of 28.57 to the white population, or 35 in each 1,000. The colored births were 113 less than the colored decedents. In the preceding year the deaths exceeded the births by 47. There were 74 twin births, and the ratio of still-births to those born alive was one to 18.81.

MARRIAGES.—The number of marriages during the year was 3,883, an increase of 121, or an advance of 3.22 per cent. over the preceding year, and equals the probable growth of the population during the same period. The rate is 28 marriages in each 1,000 of the population, or one person married to each 35.61 of the whole population.

Nearly 22 per cent. of the marriages occurred during the months of October and November. The fewest in any one month took place, as usual, in March, those in that month making only 3.47 of the whole number. The daily average of marriages was 10.64.

The number in which both parties were native born was 1,429, and in which one or both parties were foreign born, 2,454. In 361 instances the brides were older than the grooms. The number in which both parties were colored was 82, and in which the grooms were colored and the brides white, 26.

The number of certificates of intentions of marriage issued during the year was 4,549, an increase of 125, or 2 82 per cent. compared with the preceding year. It will be seen that the number of certificates issued exceeded the number of marriages recorded by 666.

DEATHS.—There were 7,869 deaths in Boston during the year—a decrease of 221 from the mortality of the preceding year. If the difference between the number of deaths from small-pox in 1872, and the number that occurred in 1873 (436) be considered in connection with the diminished mortality of the latter year, there will be the difference between 221 and 436 (215 deaths) in favor of the general mortality of 1872 compared with that of 1873.

According to a careful estimate, the death-rate was 28.45 in a thousand—a reduction in the general result of two in a thousand from that of the preceding year; but still sufficiently large to awaken concern. The death-rate throughout the commonwealth is about 23 in a thousand. Although it is to be expected that large cities will exhibit a higher death-rate than is seen in small towns, it is evident that the present rate in Boston is excessive; and, with two or three exceptions, contrasts unfavorably with those of the last twenty years.

The average age of the male decedents during the past year was 23 years 10 months; that of the females, 25 years 2 months.

The colored population is not far from 3,600, and there were 245 deaths from this class, an increase of 83 over the preceding year.

Of the male decedents, 1,139 were married at the time of death, and 93 were widowers. Of the former, 689, and of the latter, 47, were foreign born. Of the female decedents, 930 were married and 549 were widows. Of the former, 610, and of the latter, 324, were foreign born; 68.79 per cent. of the deaths were native born. The number of deaths under 15 years of age was 3,756, and 135 died on the day of their birth; 268 deaths were caused by accidents, 42 being from railroad and 35 from drowning; 410 died from diseases of the brain; 141 from cancer; 196 from bronchitis; 801 from cholera infantum, diarrhea, and dysentery; 39, cholera morbus; 1,194, consumption; 474, scarlet fever; 243, typhoid fever; 144, diseases of the heart; 216, cerebro-spinal meningitis; 302, small-pox; 32, suicides, etc.

The death rate appears in the ratio of 28.45 in a thousand, a larger rate than has been reached, save in 1853 and 1854, for the last twenty-five years, and in making an inquiry as to the cause of this large mortality, the report urges increased attention to the sanitary care of the city in the matters of drainage, sewage, water, air, light, and ventilation. B.

OHIO STATE MEDICAL SOCIETY.

The Society met in Toledo, June 16th, and was called to order by Dr. W. T. Ridenour, chairman of the Executive Committee. The president of the society, Dr. H. J. Herrick, took the chair, when Dr. Ridenour, as president of the Lucas County Medical Society, delivered the address of welcome. After which Dr. Murphy presented the following preamble and resolutions, which were unanimously adopted:

"Whereas, The constitution of the American Medical Association has been amended, restricting representation in that body to delegates from State Societies, and from local and district societies only represented in State Societies; therefore,

"*Resolved*, That the Committee on Medical Societies be requested to draw up an address to the societies in the various counties and cities of the state, recommending them to send delegates to this society, so that they may be represented in the National Association.

"*Resolved, further*, That the committee also direct the attention of the physicians in counties without an organization, to the importance of forming societies."

Drs. Langdon, Haddock, Edwards, Dawson, and Forbes were appointed to fill vacancies in Committees on Publication.

AFTERNOON SESSION.

The association met promptly at 2 P. M. The president called for reports from standing committees. Dr. Hyatt, from the committee who were instructed to attend the National Association which met at Detroit on the 2d, 3d and 4th of June, gave quite a lengthy resume of Dr. Gross' paper upon a specific disease; also upon the position taken by Dr. Sayer, of Bellevue Hospital, New York city, concerning the shortening of the long bones as a result of fracture.

The secretary read a letter from Dr. E. B. Stevens, delegate to the New York State Medical Association, expressing the great satisfaction concerning his reception, and the workings of that association.

Dr. D. A. Morse, of London, O., presented a report upon "Monomania," discussing the following questions:

"Is there a *monomania?* Can a man be insane as to one idea, or fact, and be *sane* as to all others? Is there an *insanity without delusions?* (without *delirium?*) Is delusion a *test* of insanity? How are *instinct* and *intellect related?* Is there an *instinctive*, or *reasoning mania?* Can man be *insane* as to *instinct* and remain *sane* in *intellect?* Is knowledge of '*right and wrong*,' a just and sufficient test of responsibility?"

His conclusions were:

1. That there is, in the sense we use the term, a monomania.

2. That there is an instinctive, reasoning or moral mania.

3. That *delusion is a test of insanity to this extent:* that where delusion exists there is insanity, is accepted by all authority; that no responsibility is attached when an act committed is the offspring of delusion, and is in the line of such delusion.

4. That an individual whose delusions defy the evidence of his own senses, whose reason and judgment are incapable of correcting false perceptions, or ideas resulting therefrom; whose impulses having overpowered the will, are guided wholly by instinct, although in all these cases he may be able to distinguish right and wrong, is insane, and to this extent irresponsible.

5. That knowledge of right and wrong is with this class of cases no test of responsibility.

By a unanimous vote, the report was referred to the Committee on Publication, with instructions to publish.

The question of dividing the time by organizing into sections was freely discussed, but it was finally decided not to be in accordance with the constitution and by-laws.

Dr. E. H. Hyatt read a very able paper upon "Alcohol." This was of a supplemental character, and a continuation of his article read last year at the meeting of the society at Columbus, entitled "Therapeutics of Alcohol."

The paper was accepted by the society, and a motion "to refer it to the Committee on Publication, with instructions to print," called out a discussion at some length, in which Dr. McLaughlin gave, in a clear and concise manner, the peculiar effects of alcohol.

Dr. Hyatt replied, fully sustaining the position he assumed, that alcohol was a sedative and not a stimulant; that the use of the name stimulant in connection with alcohol was a misnomer. The paper was then referred to the Committee for Publication, with permission for Dr. Hyatt to revise.

Dr. Mussey, from the Committee on Ethics, reported that the committee considered the resolution proposed by Dr. Hyatt unnecessary, as a member of this society has, in their opinion, the right to withdraw at his pleasure when in good standing, and after he has discharged all his obligations to the society.

Dr. W. W. Jones read a carefully prepared article on "State Medicine and Public Hygiene," which was referred to Committee on Publication, with instructions to print.

Dr. J. H. Buckner read a paper on "Cerebral Amaurosis and its Connection with Diseases of the Kidneys," which was listened to with marked attention, and at its close called out a discussion, in which Dr. X. C. Scott took exceptions, differing quite materially from the essayist. Dr. B. replied, quoting authorities substantiating the positions he had assumed. Dr. Noyes, of Detroit, was invited to participate in the discussion, and responded in a few remarks, favoring the abandonment of the term "amaurosis."

Dr. Mussey, from Special Committee on "Electrolysis," made a report of a case of cancer, which he treated by electricity very successfully, accomplishing a complete cure. He also gave the result of a long series of observations tending to show that there is every reason to believe that great benefit is derived from the use of electricity in the treatment of tumors, and especially in fibrous tumors of the uterus.

Dr. Hyatt called the attention of the association to a new publication entitled "Diploteratology," or an account of the celebrated double child that was born in Morrow county, in October, 1870; also, of the life, death, and autopsy of the Siamese twins, who died in North Carolina in January last, and of other monstrosities. The work was very favorably received by the profession.

The association then adjourned until 9 o'clock A. M.

SECOND DAY'S PROCEEDINGS.

Pursuant to announcement, the association assembled at 9 o'clock, and was called to order by the president, Prof. Herrick.

After the reading of the minutes, a resolution was offered by Dr. Hyatt, concerning the passage of additional sanitary laws, viz:

"*Resolved*, That in view of the important recommendations of Dr. Jones' paper, 'that a state board of health be appointed,' that a committee of five be appointed (and that the author of that paper be one of that committee) to memorialize the general assembly of this state, in regard to establishing a bureau of health, with a sanitary superintendent."

The resolution was adopted unanimously.

Dr. S. S. Gray, of Piqua, read an article on "Quinine," which showed careful observation and well-recorded deductions. It was well received and referred to the Committee on Publication, with instructions to print.

Dr. W. W. Seeley, Professor of Diseases of the Eye and Ear in the Medical College of Ohio, read a very able paper upon "Otology," which was accepted and referred, with instructions to print.

The president, Dr. Henry F. Herrick, then delivered his annual address, in which he paid the following tribute to the physician and profession:

"He is provided with his sounding-line, compass, and chronometer, and all necessary appliances, and understands the science of navigation. He knows also the currents and counter-currents of the ocean of waters below and the ocean of air above, and feels confident to guide her safe with her precious cargo to the desired haven. He succeeds admirably in the open sea when all is smooth and uniform. He can compute his latitude and longitude at any moment and define his position, and so regulate the velocity of his ship as to secure the most rapid progress, together with the greatest safety to the cargo. But seen in the distance, there gathers a threatening tempest. Like an avalanche from a towering cliff, it threatens all with destruction. By the fierce lightning's glare, an iceberg is also seen to be borne with the tempest, which adds terror to the prospect. Ah! now where is your science, in the hour of calamity. But see. Understanding the direction of the currents, the soundings, and the capacity of his ship in an hour of trial, he reefs sail, tacks his ship, and in a moment, guided by his unerring compass, or properly allowing for its deflections, he avoids the threatened collision, and steers safely into the open sea, master of the storm and danger. Who would not rather trust his life to a ship guided by such a commander. Storms may threaten, icebergs may stand in the way, counter-currents may oppose the progress, the needle even may not point to the pole star, yet he alone is most competent to interpret all these different conditions and meet them.

"Thus the faithful ship commander assumes a tremendous responsibility. Yet, none the less does he who attempts to guide the frail bark of human life out of a tempest of disease to the open way, to repose and health.

"We do not claim yet for medicines a perfect science, but a true foundation upon scientific principles, under the guidance of which we may hope to walk on secure ground. Yet withal, we observe large opportunities for practical skill, which can not be imparted, but acquired by experience. The position and standing of the profession of medicine is a matter of no small interest to the whole community, the state, and the United States. It seems also to follow as a necessary influence, that the community should exercise some discretion and restraint as to the character and qualifications of those entering it. Ignorant pretenders and empyrics should be screened through a board of examiners, appointed by the state, and thus the innocent public protected. I have thus presumed to examine, somewhat, the foundations of calling, that we may mark the difference between one who appreciates the relation between the science and art of medicines, and the empyric who follows false principles, or none at all.

"It may also be observed that as yet our science is not perfected to that extent which would warrant all deliverance from exercising the most charitable liberality in all of our professional intercourse toward the opinions of others."

At the close of the president's address, the motion previously lost, to accept the invitation of the Toledo Board of Trade, was reconsidered, and the invitation accepted.

After voting certain new members into the association, the convention adjourned, to go in a body to the board of trade rooms, afterward to meet on board the steamer Gazelle, at 1 o'clock.

THE EXCURSION TO PUT-IN-BAY.

At 1 o'clock the steamer Gazelle left the dock at the foot of Monroe street, well laden with the excursionists, nearly 700 in number. Everything seemed determined to make the trip all that could be desired. When fairly outside of "Turtle Light," the association was called to order by the president, and election of offices was conducted with the following result:

President—W. W. Jones, Toledo, 78 votes; C. P. Landon, Westerville, 10; E. H. Hyatt, Delaware, 20. On motion, Dr. Jones was declared unanimously elected.

1st *Vice-President*—C. P. Landon, of Westerville.

2d *Vice-President*—A. C. McLaughlin, of Fremont.

3d *Vice-President*—N. Gay, of Columbus.

4th *Vice-President*—E. W. Howard, of Akron.

On motion, the secretary cast the vote of the association for the candidates who were declared elected.

Treasurer and Librarian—S. S. Gray, of Piqua.

The ballot for treasurer and librarian were likewise cast by the secretary, and Dr. Gray declared elected.

Secretaries—Tom O. Edwards, Lancaster, 54; J. W. Hadlock, Cincinnati, 65; E. Jennings, Dayton, 58. On motion of Dr. Edwards, Drs. Hadlock and Jennings were declared unanimously elected.

Committee on Admission—E. J. McCollum, Seneca county; W. H. Mussey, Cincinnati; J. Harmon, Warren; W. S. Constant, Delaware, and W. B. Davis, Cincinnati, The vote was cast by the secretary in the usual manner.

Dr. Mussey offered a resolution of thanks to the Toledo Medical Society, and also to the citizens of Toledo, for the very cordial and royal manner of the reception and entertainment of the State Medical Society, which was carried unanimously.

Prof. J. T. Whittaker, of Cincinnati, read a paper on the "Treatment of Amenorrhœa by Faradization," giving the successful results in a case in his own practice.

C. S. Muscroft, of Cincinnati, read a carefully prepared and illustrated paper upon a case of " Osteo Sarcoma of the Superior Maxillary."

J. C. Hubbard, of Ashtabula, presented a resolution regarding the compensation of railroad surgeons, which was made a special topic for consideration this morning.

Prof. W. S. Scott, of Cleveland, called the attention of the Committee on Medical Ethics to the fact that Dr. W. L. Peck, lately of the Central Lunatic Asylum, Columbus, had violated the code of ethics, in the association of himself with the "Sanitarian Institution," of Cincinnati, under homeopathic control.

The society adjourned till 9 o'clock A. M., June 18th, to meet in Odd Fellows' Hall.

THIRD AND LAST DAY'S PROCEEDINGS.

In accordance with the adjournment on board the steamer Gazelle, the association met June 18th, and was called to order by the president at 9 o'clock. Minutes read and approved.

Dr. S. Hubbard offered the following resolution, which was made the special order of the morning, viz:

"WHEREAS, Certain railroad companies in this state have announced their attention to pay for surgical and medical services in 'passes' only; therefore, it is

"*Resolved*, By this society, that acquiescence in such terms is detrimental to the dignity and liberty of medical men, when called as witnesses and experts in courts of justice and on other occasions, and that it is dictatorial and unjust, and that this society emphatically condemn it."

The resolution was carried.

Dr. Mussey offered the following preamble and resolutions in reference to alcohol as a medicine:

"WHEREAS, The use of intoxicating drinks is an evil of alarming magnitude to the state, to the community, to the family, and to the individual, being the most fruitful source of crime, of improvident living, of domestic unhappiness, and of personal degradation; and

"WHEREAS, The use of alcohol as a medicine is often injurious and unnecessary; and

"WHEREAS, It is the obligation and privilege of the good citizen and philanthropist to protect the interests of the body politic, to promote good order, industry, and happiness, and to rescue the victims of vice from its influence; therefore,

"*Resolved*, That we will use our influence against the use of intoxicating drinks as beverages.

"*Resolved*, That we deplore the excessive use of alcohol as medicine, and that we will use our influence to limit it to calls of urgency."

After considerable discussion of the preamble and resolutions *pro* and *con*, they were carried.

A paper by D. J. Snyder, M. D., of Scio, Ohio, upon the "Use of Ergot in Puerperal Convulsions," was "read by its title" and referred to the Committee on Publication, and ordered to be printed.

Dr. Russell, of Mt. Vernon, chairman of the committee, read a paper on "Inebriate Asylums," which was referred to the Committee on Publication, with instructions to print.

Dr. A. T. Keyt, of Walnut Hills, Cincinnati, read an able paper on "Diseases of the Heart." Referred to the Committee on Publication, with instructions to print.

The place of the next annual meeting was determined to be at Put-in-Bay, on the second Tuesday in June.

Dr. S. S. Scoville, of Lebanon, read a paper on "Diseases of the Spleen." The paper was well received and referred to the Committee on Publication, with orders to print.

Dr. C. E. Slocum, of Defiance, offered a paper entitled "Cerebral Affections as a Cause of Sudden Death of the Parturient Female," with a case of cerebral hemorrhage, which was read by its title and referred to the Committee on Publication, with orders to print.

The report of the Finance Committee was adopted.

Dr. J. W. Russell, of Mt. Vernon, read a paper on "Urinalysis," showing great research and careful observation. It was referred to the Committee on Publication, with orders to print.

The report of Dr. S. S. Gray, of Piqua, treasurer and librarian, was read, received, and referred to the Finance Committee for action.

A motion was made and carried that Dr. Mussey, of Cincinnati, be requested to furnish his article on "Electrolysis" in writing, and that when furnished the Committee on Publication print it.

Dr. Hyatt, chairman of the Committee on Obituaries, asked for and was granted further time for his report, which will be sent to the Committee on Publication when completed, and printed by them.

Dr. S. F. Forbes, of Toledo, read a volunteer paper entitled "A New Amputation through the Foot," which was referred to the Committee on Publication, with instructions to print. Drs. Murray and Scott spoke in terms of commendation of the operation. The association was deeply interested, and regarded the operation as being a valuable addition to surgical practice.

Adjourned till 2 o'clock.

The following committees for the ensuing year were announced, viz:

Executive—A. H. Agard, W. J. Scott, S. S. Thorn, A. Dunlap, H. J. Donahue.

Publication—Tom O. Edwards, Jr., J. W. Hadlock, E. Jennings, W. W. Dawson, I. H. Clark.

Medical Societies—W. T. Ridenour, John Bennett, W. Carson, A. C. McLaughlin.

Finance—T. G. McEbright, J. G. McCulloch, D. B. Smith, H. N. Hetzler, E. H. Hyatt.

Delegates to American Medical Association—C. P. Landon, Westerville; A. J. Longfellow, W. J. Scott, Cleveland; John M. Corey, Fremont; W. W. Elsberry, Georgetown; George S. Courtright, Lithopolis; E. W. Howard, Thomas McEbright, Akron; W. W. Jones, Toledo; W. H. Mussey, R. Bartholow, Cincinnati; H. J. Herrick, X. S. Scott, Cleveland; E. H. Hyatt, Delaware; Chas. E. Slocum, Defiance; G. C. E. Weber, Cleveland; S. Woodruff, Alton; J. A. Wilkins, Delta; S. F. Forbes, Toledo; J. C. Reeve, Dayton; A. T. Keyt, Walnut Hills, Cincinnati; E. Jennings, Dayton; T. P. Bishop, Delta.

Special Committees—W. B. Davis, Medical Examination for Life Insurance; D. A. Morse, Nervous and Mental Diseases; A. McBride, Pessaries; X. C. Scott, Ophthalmology; J. H. Buchner, Astigmatism; W. S. Scott, Nervous Diseases; D. B. Smith, Cataract; J. N. Hines, History of Peripheral Nerve Terminations; G. C. E. Weber, Surgery; H. J. Herrick, Capacity for Repair of Injuries and Diseases of the Human System; J. B. Hough, Nature of the Evidence of Spontaneous Generation; W. T. Ridenour, Relation of Regular Medicine to the Pathies of the Day; G. E. Walton, Mineral Springs of this and other Countries; Roberts Bartholow, Nervous Diseases; W. J. Conklin, Puerperal Fever; W. W. Dawson, Surgery; T. A. Reding, Obstetrics; Jonathan Morris, Epidemic Malpresentations; A. G. Stevenson, Small-pox; G. S. Stein, Epidemic Diseases; R. Gundry, Puerperal Insanity; D. D. Bramble, Ex-Section of the Hip Joint; N. Gay, Consumption in the Ohio Penitentiary; A. Dunlap, Ovariotomy; T. D. Davis, Muscæ Volitantes; W. Carson, Chronic Diseases of the Lungs.

On motion of Dr. Jones, D. H. Conant, a practitioner in Maumee Valley since 1816, was made an honorary member of this society.

On motion of Dr. Edwards, the secretary, a vote of thanks was given to the Odd Fellows, who gratuitously furnished the hall for the meetings of this society.

A paper from Dr. Holey, on "Trichnosis," was read and referred to the Committee on Publication, and ordered to be printed.

Dr. Slocum read a paper on "Cerebral Hemorrhage," which was referred to the Committee on Publication and ordered printed.

Dr. Scott read a paper consisting of notes of cases he has observed of nervous diseases of railroad employes, for the purpose of hearing criticisms from the association.

Dr. S. S. Thorn read an article which he had prepared for and read before the Northwestern Ohio Medical Association at their last session, upon a specific disease. He illustrated his remarks and substantiated his prognostications by the introduction of the patient before the society.

Dr. Morse read a paper on "Insanity," which called out Dr. Scott, of Cleveland, who objected to its publication. It was, however, referred to the Committee on Publication, with instructions to print.

Dr. J. G. Nolen introduced a young lady suffering from deafness, which he considered the result of cerebro-spinal meningitis, and asked for an examination. Drs. Mussey and Smith made a report, but were not satisfied as to the exact condition at the present time, owing to the lack of proper appliances for instituting a critical and thorough examination.

A committee, upon motion of Dr. Mussey, was appointed to prepare an article upon the use and abuse of alcohol as a remedial agent. The committee consisted of two gentlemen whose names we could not get, and Dr. J. T. Woods, of Toledo.

The treasurer and librarian, Dr. Gray, gave notice that some one had, by mistake, carried away his copy of the Transactions of the Society for 1872, in which he had corrections of the catalogue marked, from data which can not be obtained from any other source. Whoever has it will confer a favor, not only upon him, but also upon the society, by returning it immediately by express to Dr. S. S. Gray, Piqua, Ohio.

The regular business of the society being concluded, the association engaged in desultory discussions of matters personal and professional which incidentally came up.

The American Medical Weekly.—Our friend and neighbor Dr. E. S. Gaillard, of Louisville, not being content with the success he has achieved as editor and publisher of the *Richmond and Louisville Medical Journal*, must needs offer to the profession a weekly journal. He gives it a good send-off, and, in the hands of so experienced a veteran, such a word as fail is out of the question.

Srspended.—The Northwestern Medical and Surgical Journal, of St. Paul, Minn.

Selections.

Subcutaneous Division of the Neck of the Femur for Bony Anchylosis of the Hip-Joint.—Dr. H. B. Sands reports the cast of a man upon whom he has operated successfully for bony anchylosis of the hip-joint. The patient was twenty-five years of age, of fair constitution, but somewhat irregular habits, and had suffered from a severe attack of articular rheumatism four years previous to the time of the operation. The right hip-joint was kept in a flexed position during convalescence, and subsequently remained rigid, the thigh being considerably abducted, and flexed on the pelvis at an angle of 110° to the vertebral column. The patient could not rest the right foot on the ground without assuming a crouching attitude, and could not walk without crutches.

The rigidity being found to be due to true anchylosis, the following operation was performed: A long straight, narrow bistoury was thrust through the soft parts just above the great trochanter, and carried directly in front of the cervix femoris, so as to separate the soft parts from this aspect of the bone. A narrow saw was introduced along the track made by the knife, and the neck of the femur divided. It was then found necessary to sever the tendons of the abductor longus and the tensor vaginæ femoris, after which the thigh was immediately and readily extended to a right line with the body, and kept there by a weight attached to the foot; the patient being put to bed and confined there for six weeks, in the hope of obtaining bony anchylosis in the straight position. As it was found at the end of that time that the parts remained freely movable, he was permitted to get up and move around on crutches. There was a shortening of a quarter of an inch. He now walks quite well and steadily with a cane, a useful and satisfactory false joint having resulted.—*New York Medical Journal*, *December*, 1873.

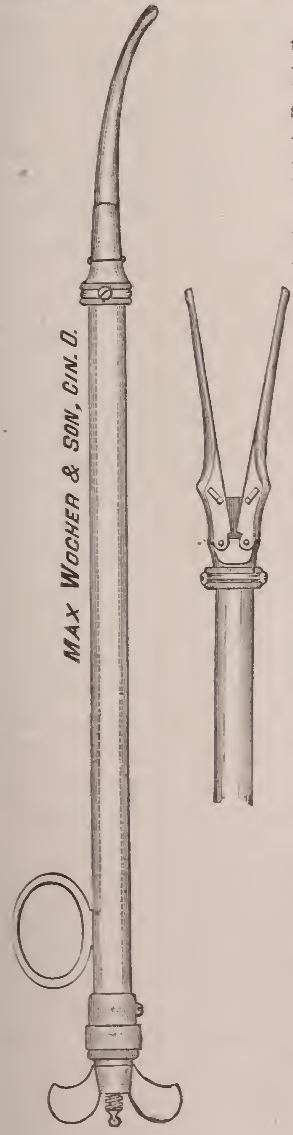
A New Form of Uterine Dilators. By C. D. PALMER, M. D., *Prof. of Medical and Surgical Diseases of Women in the Medical College of Ohio.*—It is the desire and intention of the author to present to the attention of the profession a new form of metallic uterine dilator.

In the Archiv. fur Gynäkologie, v. 2, 1873, Dr. Ellinger, Stuttgart, presented an article showing the value of cervical dilatation with an instrument of his own invention. On a presentation of the diagram of this instrument to Mr. Max Wocher, the skillful surgical instrument-maker of this city, he kindly at once made one. It has occurred to the author that this instrument was open to several objections. The blades, two inches long, are so arranged that by a peculiar mechanism they are separated in parallel lines. What thus appears to be a parallel dilatation from os internum to os externum is really not such, in that the blades being somewhat thin, necessarily so, yield most at the point of greatest resistance, which is at the internal os. Practically, there is then produced a wedged-shaped dilatation, the apex of which is above and the base below. With a complicated mechanism, the handle of the instrument consumes no small amount of room if manipulation is carried on through the speculum. Moreover, the expansion of the blades is effected solely with the hand of the operator, and must be more or less unsteady, irregular, and uncertain.

Atlee's and Nott's instruments, simple and cheap, are open to the last-mentioned objection.

In fine, any mechanism performed purely with the hand is similarly defective.

Receiving several valuable suggestions from Mr. Wocher, I have finally settled upon the following instrument: Whole length of instrument 12 in.; blades 2 in. long; curved as the uterine sound to facilitate introduction; provided with projecting shoulders at this distance from extremities to prevent undue introduction. The mechanism is arranged by means of a rod within tubing 5-16ths in. in diameter; the expansion secured by a screw at the manual extremity. The blades, when separated to a maximum, present the appearance of producing a wedged-shape dilatation, the apex of which is at the os externum. This is, however, more apparent than real. Each blade thickens and widens from point to shoulder from $\frac{1}{8}$ in. to $\frac{3}{8}$ in., and necessarily springs most where weakest and where it meets with the greatest resistance—the internal os. When both are then separated by the turning of the screw, practically there is secured a parallel dilatation throughout their length —for more than two-thirds of their expansion. The construction of the mechanism, by means of a screw, produces dilatation gradually, steadily, and uniformly; and consequently with less pain than by Ellinger's or Atlee's method. Dilatation, too, may be carried on as slowly or as rapidly as the operator desires—one or a number of sittings be occupied. The maximum separation is $\frac{7}{8}$ in., sufficient to rupture some of the surrounding fibers, when the dilatation has been rapidly performed.



The instrument is first introduced within the cervical canal and expansion effected laterally; subsequently, if deemed necessary, it is turned, and the dilatation further carried on antero-posteriorly or obliquely.

The small size of shank, made from tubing, will be found advantageous in manipulation through or without the speculum.

Manifestly, now this instrument has no small value in facilitating both the diagnosis and the treatment of uterine affections. To determine how much, it is necessary to institute somewhat of a comparison with the various other means of dilatation.

For diagnosis, its field of utility is certainly limited:

1. It may be found exceptionally useful, previously employed, in straightening and tunneling out the cervical canal, tortuous or strictured, to aid in the introduction of the uterine sound.

2. More often useful to aid in the introduction of tents.

As a means of dilating the cervical canal to permit of digital exploration, it is certainly far inferior to tents.

As a therapeutic means, its field of utility is not limited. It will be found to be useful:

1. To aid in the introduction of intra-uterine stem pessaries, and hysterotomes.

2. To secure sufficient dilatation of the

cervical canal to permit of ready and thorough introduction of medicinal agents to the diseased surface of endometrium of cervix and corpus uteri; as by means of cotton-wrapped probe, injections, or ointments.

Every experienced gynecian has realized the difficulties in making thorough applications of fluid medicines to the uterine canal, especially the corporeal cavity, without preliminary dilatation, as well as the necessity for the latter before essaying the use of injections. Here the dilator may supersede in part the use of tents, the employment of which is expensive to patient, painful, and not altogether safe. Several practitioners, Duncan, Kammerer, Peaslee, and Storer, have used for this purpose the metallic bougie dilator. Some five years ago, I had prepared a series of uterine dilators of copper, three in number, graduated from No. 00 to No. 16. The use of these always was quite unsatisfactory.

It is very apparent that these various bougies may now be entirely superseded by the *dilator*.

3. To overcome strictured and tortuous conditions of the cervical canal with mechanical obstruction to the exit of menstrual flux and entrance of spermatazoa, occasioning thereby dysmenorrhœa and sterility.—*Clinic.*

Errata.—In the next number of LANCET AND OBSERVER, please state that in the table No. 27, should have ben marked "pulmonic secondsound louder;" Nos. 33 and 74, "aortic second sound louder;" and Nos. 12, 26, and 83, "both equal." Also, in the text, page 403, tenth line from the top, "disordered" should have been written instead of "*discordant.*" Also as omitted in the manuscript, "or musical" should have followed "*if a murmur is harsh or rough,*" page 407.

A. T. KEYT, M. D.

Editorial.

He was born, lived, died, and lastly forgotten, might fitly be written as the epitaph of nearly every member of the medical profession who has ended his days in our city. A few have had their names written on the scroll of fame, by reason of their remarkable skill as practitioners of medicine or surgery, but their number is so small, that after enumerating them on the fingers of one hand, we are at a loss for another name. Yet we know there were giants in those days, whose names come to us almost as a myth; their fame was not enduring, but of an ephemeral character. Quite a number acquired a competence of this world's goods, and a few considerable wealth.

With probably a single exception, the memories of the genius of those men are dependent entirely upon the records of their superior skill in their profession. That great man, Daniel Drake, who was an exception to his contemporaries, in the breadth of his views, laid the foundation of what is to-day known as the Cincinnati College, which is one of the most prominent among the institutions of learning in our midst, the income from its endowment supporting in the most liberal manner an entire law faculty, and furnishing them with lecture halls. A part of the endowment of the school of art is from the same source, and all achieved through the thoughtfulness and foresight as to the necessities of future generations, by that indomitable physician whose name we honor, and hear mentioned with the most profound reverence and respect.

Notwithstanding the work he accomplished in the interests of medical as well as literary education, we find that to-day not one dollar of the endowment fund of the Cincinnati College has ever been devoted to the cause of medical education—a cause so dear to the heart of the founder of the college. On the contrary, its revenues, as stated above, are diverted into other channels, there being but a bare representation of the medical profession among its board of trustees.

The Cincinnati College being a part of the organization known as the Cincinnati University, we have already appealed to the members of that board to found a medical department that would consist of four chairs, which would be valuable adjuncts to the existing colleges.

We now appeal to some of the members of the medical profession who are numbered among our readers, not to let it be said of you by future generations: "He was born, lived, practiced the healing art, died, and is forgotten." Found and endow a chair in the Cincinnati University; give that chair your own name; and posterity will rise up and call you blessed, and the medical profession will for all time hold you in grateful remembrance. Let it be said of you: "He was born, lived, was a member of the medical profession; for love of his fellow-men and that profession, he founded and liberally endowed the chair of —— in the Cincinnati University. He did what he could, and is honored by all men."

We have in our mind the names of three or four gentlemen who have the requisite financial ability to keep their names from going down to oblivion, by pursuing the above course, and whose families would not suffer in consequence. We ask them to consider what splendid results are crowning the lectureship established recently in Washington City, by Dr. Toner. It has sent his name and generous liberality, coupled with that of medical science, throughout the whole civilized world. Gentlemen, we hope you will emulate the example of such noble men as Dr. Toner, and place your names by the side of that of McMicken, Woodward, and Hughes in Cincinnati. Such a monument is a thousand-fold more enduring than the most costly shaft of granite or statue of bronze. You well know that to-day there is no living person in Cincinnati whose name is so familiar a household word as that of McMicken, Woodward, or Hughes, nor is their memory kept green by reason of expensive monuments in Spring Grove. Their works are their glory, and their shrine is in the hearts of all our citizens. Gentlemen, are you not ambitious to reap such a harvest of glory and honor? Such capital prizes are only offered to a very few; the golden opportunity is presented. Assist in making the Cincinnati University an institution worthy the name "University;" an institution whose fame shall be co-extensive with that of civilization. Consider our suggestions and give posterity an opportunity to say of you, "He did what he could."

Are the Righteous always Right?—Ministers of the gospel are almost universally looked to by the people as examples of morality and virtue, and, by reason of their profession, should be the leaders in all good works. Many of them fill their calling with honor to themselves and profit to the world. Not the least honored and influential among the clergy are those who edit and publish what is known as the religious press. As there is scarcely a family in either city or country that does not read some religious paper, we propose to criticise a part of the contents of a few of the aforesaid class of newspapers—viz., their advertisements. Doctors are frequently accused, especially in the revival days of temperance, with being the frequent cause of persons becoming habitual drunkards. No doubt there are a few isolated cases of that character and the physician was at fault; but, as a rule, where such cases are found to exist, the unfortunate individual and his friends seek for some plausible excuse for his downward career, and occasionally imagine they can trace the taste for the cup to a prescription given by a physician—never once thinking of the number of times they, of their own accord, had the same prescription refilled without asking the advice of the doctor who ordered it in the first instance. However, where there is to be found one victim of intemperance from this cause, there is an immense number who become habitual drunkards through the use of *stomach bitters* advertised, and frequently indorsed, in the editorial columns of the religious press. The publishers may plead ignorance of the formulæ by which the numerous compounds sold under the name of stomach bitters are manufactured. This may be true to a certain extent; but they know, as does every man who takes his bitters under those names, that they are mainly composed of cheap whisky, with a little quassia, aloes, or wormwood added, to give the required bitter taste. Now, gentlemen of the clergy, who control the religious press, is your vocation so financially precarious that your success must be attained by being instrumental in causing a very large amount of the misery and unhappiness that follows habitual drunkenness? Yet this is one of the sins to which you must nearly all plead guilty.

On taking up a late number of one of the most prominent of the religious weeklies, we found more than one-fifth of the whole paper taken up with the most villainous advertisements of quack preparations. One of the editorial columns calls attention to the principal advertiser, his establishment and business, winding up the article, two-thirds of a column long, with the following statement: "We publish the above, not as a 'paid puff,' but as only a fair representation of one of the first business men of the land," etc. Messrs. Publishers, we do not charge you with writing that article, as it bears the ear-marks of the man who wrote your *whole-page* advertisement. We ask whether you did not willfully mislead your readers when you published that article? And will you pretend to deny that it was a "*paid puff*," notwithstanding the above assertion? Messrs. Publishers, are you not the active means of debauching the morals, tastes, and pockets of your readers? And is this the high object to be attained by those who are held by the common people to be men of righteousness and sound morality?

We can scarcely believe that the publishers of the religious press are ignorant of the vast amount of iniquity and harm they are causing by the course pursued in this matter. Last winter, a poor clergyman in Kansas appealed to a prominent church in this city for aid to support him while here under the care of a notorious quack, who for months kept a column or more of advertising matter in some of the religious weeklies of this city—the aforesaid quack demanding *all* of his money as an advance fee. A lady came here from the northern part of this State, and a like demand was made, which her husband had the good sense to refuse to accede to; and the parties left the city a little more firmly convinced than when they entered it, that all was not true and reliable that is published in a religious paper.

Gentlemen of the religious press, this is not written from any selfish or mercenary purpose on our part, as it is a well-known fact that those same advertisements eventually result in an increase of business to the regular profession. The unfortunates who are duped by the quacks almost universally go back to their family physician in a worse condition than when they first read and took the advice proffered by a religious newspaper.

Medical—Free Dispensary.—Diseases of the lungs treated from 1 to 3½ o'clock P. M. daily, at No. —— S—— street, second door below F——.

W. M——, *Attending Physician.*

The above advertisement, over the signature of a gentleman who is recognized as a regular physician, recently appeared in the columns of a daily paper of this city.

To us it reads very quackish, and yet we do not know that it is any more reprehensible than is the practice of some other men in good standing in the profession, who manage by some means to have their cases reported in the local columns of the daily papers, after this fashion: "*Accident.*—Mr. ——, while passing down C—— street, stepped on an orange-peel, slipped and fell, causing a compound comminuted fracture of his coccyx. Dr. Borborigmus was called in, who pronounced the injury as of a very grave character, but not likely to produce a fatal result." Over which the city in general, the family, and doctor in particular, rejoice greatly. Or: "*Another Common-school Horror.*—Master ——, son of one of our most prominent citizens, caused a pin to assume a shape not laid down in Ray's geometry, and placed it on the teacher's chair, thereby producing a reflex action, that resulted in a serious amount of counterirritation over the glutæii muscles of the aforesaid son of our prominent citizen." Dr. Flatus, the family physician, is called in, makes a careful examination, and gives it as his unqualified opinion, that if Freddy is at once sent to Saratoga and compelled to drink daily at least two gallons of the water, as it is dipped up from Congress Spring, he may possible escape a dangerous attack of cerebro-spinal meningitis. Off goes Freddy, the doctor is advertised, collects his fee, folds his arms, looks wise, and is happy.

Nor does the above advertisement seem to us to be any more unprofessional than are the glaring sign-boards seen on the walls of many of our medical colleges, to this effect: "Free dispensary. No charge for medicines. Dr. D.'s clinic from 4 to 6 o'clock P. M.," etc.

Our objection to these free dispensaries is for this reason: The city and county furnishes the most abundant provision for the wants of the deserving poor, paying for both medical attendance and medicines; but there is a large class of people whose names are not recorded as deserving poor, but being of an economical turn of mind, embrace the opportunity to save a doctor's bill, as well as that of the apothecary, and go to the free dispensary, thereby actually robbing some member of the profession of a case. We hear the statement frequently made, and believe it to be nearly correct, that it ordinarily takes a man ten years to get into a business that will barely support him in this city. This free dispensary business we believe to be one of the causes that operates to keep business out of the hands of the younger members of the profession. For deeds of benevolence and charity, undoubtedly, the medical profession deserves to be written high on the roll of honor, but we feel that neither the cause of benevolence nor charity is considered when individuals undertake to establish a free dispensary in this city. Because certain individuals occupy professional positions, they have thereby no inherent right to rob other equally worthy members of their profession of a business that should go into their hands.

Who ever heard of a law college that had emblazoned on its walls a notice to this effect: "Cases undertaken and tried in all the various courts by members of the faculty. No fees charged. Advice in all cases gratuitous."

Yet there is just as much reason in one case as in the other. In place of "free dispensary," we would paint the sign "free robbery." We claim that they are all unprofessional and deserving of censure, being used to advertise the special skill of certain individuals in the treatment of a particular class of diseases. Be just, afterward generous.

Are members of the regular medical profession guilty of the crime of producing abortions, is a question that has lately been discussed at length in the Cincinnati Academy of Medicine—the discussion growing out of a declaration made to that effect by a prominent member of the Academy. The subject was at once referred to the committee on ethics, and afterward, at the instigation of the gentleman who made the assertion, taken out of their hands and referred to a special committee, before whom he failed to substantiate his assertion, except by evidence of a hearsay character and vague rumors—such testimony as would be ruled out by any court of justice—although we have reason to believe the most strenuous exertions were made to discover a tangible case that would justify the above declaration. Several prominent physicians, who have continuously practiced medicine in this city for periods ranging from twenty to forty-four years, have asserted in our hearing that they have never known of any evidence of a character that would implicate in the above crime a single member of the regular profession.

We have just read two papers recently published on this subject—one in the *Northwestern Medical and Surgical Journal*, St. Paul, June, 1874, by W. D. Cornish, Esq., in which he makes the following statement: "The perpetrators, aside from the mothers, are, it is said, in the majority of cases women; but it is charged that not only midwives and quacks, but physicians in regular standing, not infrequently induce abortion with criminal intent. There may be exceptional cases, but I believe that the procuring of necessary abortions is the only foundation for the charge." The author had stated previously in his paper that by necessary abortions he meant cases where abortion is legitimized by the rules of science, and the necessity should not rest upon a single opinion.

In a paper published in the *Chicago Medical Journal*, July, 1874, by James S. Whitmire, M. D., on the subject of criminal abortion, we find the following: "Professional men and women, who are, in fact, educated and qualified in their calling, seldom or never engage in this crime against nature; they have too much professional pride to be bought with gold, or to be influenced by sympathy, to be engaged in any such disreputable practices; besides, the moral standing of a professional man should be above reproach or even suspicion."

We have in vain sought for a reason why any man in his right mind should make an assertion to the effect that there are members of the regular medical profession, in fair standing, who are guilty of the crime of producing abortions. As stated above, the gentleman was unable to substantiate his assertion beyond hearsay testimony and rumor, of such a character that it would not be listened to in a court of justice. Such being the case, we can not understand how any man with the slightest sense of honor or self-respect would allow himself to be recognized as a member of a profession that he held in such low esteem, as to say that its members can be in good standing and at the same time be guilty of one of the most heinous crimes in the calendar.

Yet, we find the gentleman has never in his whole life once appeared before a grand jury or court of justice to testify that he knows of such crimes being committed. In that he does not act the part of a good citizen, by making an honorable effort to rid society of a set of vampires that would sap its vitals; nor do we find that the gentleman has during his professional life once appeared before any medical society of which he was a member, and made a solitary effort to purge those societies of those members who make use of their professional knowledge to commit a villainous crime. Taking into consideration the testimony of a large number of physicians, both here and elsewhere—men who would most certainly know if such a crime was at all common—that they have never known of its being practiced by members of the regular profession who are in fair standing, we can not but express the sentiment that the gentleman, in befouling his own nest, has brought upon himself the merited contempt of a very large part of the profession who have been observers of his course in this matter. Another result—probably the one sought—an unenviable notoriety, with a large amount of sensational advertising in the daily press.

Miami Medical College Alumni.—The alumni of the Miami Medical College met Thursday afternoon, July 2d, when the constitution was read and adopted, from which we take the following abstract:

"Meetings to be held quarterly. The initiation fee to be one dollar; annual dues, one dollar. Original papers to be read by one or two members at each meeting, with an oration at the annual meeting."

The following officers were elected for the ensuing year: President—Dr. Wm. B. Davis; Vice-President—Dr. Byron Stanton; Secretary—Dr. Wm. Judkins; Treasurer—Dr. W. T. Brown; Executive Committee—Dr. C. P. Judkins, Dr. M. B. Kellar, Dr. H. Illowy.

The committee appointed to take action on the death of Dr. Mendenhall offered the following, which was adopted:

"WHEREAS, It has pleased the Great Disposer of Events, in his unerring wisdom, to remove from us by death Prof. George Mendenhall; therefore,

"*Resolved*, That the alumni of the Miami Medical College have heard with pain of the death of our beloved friend and late teacher, who labored so faithfully to organize and support our alma mater; who so ably filled the chair of obstetrics in our college; who devoted a life of earnest labor to the advancement of medical science, and who, by diligent research, won a deservedly high rank in the profession.

"*Resolved*, That in the death of Dr. Mendenhall society has lost a valued citizen, his family a devoted husband and an affectionate father, our profession an honored member, and our alma mater a professor, who, by his unceasing labor, has prematurely sacrificed himself to his profession.

"*Resolved*, That we will gratefully cherish the memory of our beloved preceptor and ever-ready counselor.

"*Resolved*, That we tender to the family of the deceased our heartfelt sympathy; that a copy of these resolutions be sent to them; that they be recorded in the minutes of our society and published in the daily papers and LANCET AND OBSERVER.

"W. T. BROWN,
"GEO. A. CONNER,
"BYRON STANTON,
"*Committee.*"

THE CINCINNATI

LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.

VOL. XVII.—SEPTEMBER, 1874—No. 9.

Original Communications.

Art. 1.—An Inquiry into some of the Causes which tend to elevate the human Character, as illustrating the Inability of Man to prevent his own Decay.

By T. L. WRIGHT, M. D., Bellefontaine, Ohio.

In a brief communication to the LANCET AND OBSERVER (May, 1874), I took occasion to refer to certain mental and physical signs of deterioration, which point to the decay of the race of man in our country. The great spread of insanity, inefficiency (mental and physical), cephalic catarrh, dental caries, heart disease, epilepsy, and sterility marks a decline in the human species.

Not in our own country alone, but throughout the western hemisphere, are displayed the evidences of the depravation of the human being. In our own country, it is true, the standard of the race is apparently kept at a fair elevation, through the strength imparted by a great and continuous emigration of virile humanity from another continent. But in those portions of the western hemisphere where this element of strength is withdrawn, as in Mexico, Central America, and the states of South America, the characteristics of a sinking humanity are manifest. The European feature and the European civilization retire into gloom and disappear. Barbarism, ignorance, cruelty, and mental and spiritual death brood over those lands.

To a superficial view, it would appear that the western continent presented new and remarkable advantages for the superior elevation of the race of man. Men in vigorous health, driven from the Old World by poverty or persecution, and finding, without price, a fertile soil, magnificent waters, forests without limit, and an inexhaustible mineral wealth, would naturally be expected to strike some new and elevated courses of thought and action. Standing on the firm and assured foundation of the past, they would be called upon to advance the character of man; to raise new superstructures of architectural, intellectual, moral, and spiritual glory, far higher, arching nearer to the heavens, and of a prouder splendor than any of those which mark the highest achievements of ages gone by.

But we have no architecture like that of the Old World. The ambition of the American people in the way of building either temples or monuments is mean and low. Like every effort of mind and body which characterizes the American citizen, a generation or two removed from the European emigrant, there is, on architectural subjects, great projection, but little performance. The American mind is prolific of enterprise; but in the way of building monumental works, it has proven a failure. There seems to be velocity, but no weight; it is defective in momentum. The projects of one decade are cast aside to make room for the projects of a succeeding decade. Certainly, of the architectural enterprises of the American people, it may be said, "Around them, much embryo, much abortion lay."

We have no original conception of a grandeur and stability and harmony of architectural execution, even like the Angkor Tom—that temple in the wilderness of Siam, whose nameless builders have vanished from the very dreams of history, and left no sign, save a crumbling, though magnificent ruin.

It is impossible and unnecessary in this connection to cite the characteristics of ancient architecture. That would be a work filling volumes.

The code of morals recognized in our age of the world, and in our country, is in every essential particular almost identical with that of the Greeks, or that of Buddha. The system of spiritual life, so far as it finds external expression, differs very little from that of some oriental nations to-day. The Lamas of Thibet, according to M. Huc, place supreme faith in the efficacy of prayer The number of "spiritual fathers" is immense in Mongolia. Not content with oral supplications, they devise prayer-machines which revolve by the power of water or wind, and each revolution is esteemed a separate and complete prayer. They have their hermits and religious orders, their prostrations and genuflexions, and are habited in vestments strikingly like those belonging to the custom of a vast majority of the Christians of the West. Even in the doctrine of the transmigration of souls is seen a vivid belief in the existence of a spiritual element, distinct from and independent of any special conformation of body. They even believe that paper horses scattered to the winds from the tops of mountains, may become transformed into real horses for the benefit of perishing travelers in all parts of the world. They believe in medical science; but do not hesitate to write the name of a medicine upon paper, when the substance is not at hand, and, causing the sick to swallow the paper, they believe that the specific effect of the drug named will be manifested in curing the disease. Certainly, some of this looks frivolous, yet the central doctrine of an ever-living Buddha, passing through one body and instantly becoming incarnate in another, does not seem so absurd, when the doctrine of the incarnation of the Saviour is considered; while some of the oriental notions of the virtue of healing things becoming transferred to some other typical things, is irresistibly raised above ridicule, by the dogma of the "real presence" in the eucharist.

There has not been a new thought involved that can be credited to the New World or its inhabitants. Except the active vitality in religion, and in bodily strength and mental will, which accompanies the actual emigrant or his children, all else in morals, in active working intelligence, and in vital religion, is, even in our country—the most favored portion of the New World—molding, decaying, changing from substance to empty declamatory pretense. And the body and health of man is degenerating; illustrating and explaining the decay of his mental and moral attributes. A calm survey of this country as compared with the Old World, and of the present as compared with the past, will convince the unprejudiced mind that the facts on the subject have not been exaggerated.

It is not pretended by what has preceded, to contend that the United States is less fitted for the maintenance and development of the human species than many other portions of the globe. Indeed, as compared with some parts of the earth, it presents many advantages of a very superior kind. Man is cosmopolitan. He can exist and maintain life under any zone, and beset with many difficulties. But the mere existence of man as an animal, is probably of not very much greater importance than the existence of any other animal. In affording facilities for the development of the higher qualities of human nature, is the point wherein some portions of the earth's surface are greatly superior to other portions.

The short space of authentic history demonstrates, in fact, that the higher development of the human character is not constant in any one place. So sensitive is this development in respect to peculiarities of location, that the slightest change in some one or more of the local influences will cause a superior civilization to disappear, or at least give place to a degenerated shadow, the substance having perished. The effects of a slight raising or subsidence of the land or of the ocean, of earthquakes and their accompanying influences, and of a thousand other electric, magnetic, or telluric forces that are unseen perhaps;—all of these have an influence positively vital upon the character, and even upon the very existence of civilization. The circumstances which decide for a country the momentous questions of refinement or barbarism, population or solitude, are often so singular, so apparently slight, and frequently so remote in their origin, as to excite astonishment and incredulity. Countries which, within the range of authentic history, were the garden spots of the earth, were the seats of learning, taste, and politeness, are now deserts, or have become the habitation of bats and creeping reptiles, or still more, unclean men and women. These changes have come, not because of political revolution, but because the circumstances have ceased to be capable of ministering to the perpetuation of the higher aspirations of the human soul. The nature of the climate of Siam, of whose magnificent temple ruins we have spoken, is such as no longer affords the conditions for the development of the more exalted qualities of human genius. Yet, from a point not far distant from this country—in fact, from the northern borders of Siam and Bengal, where the Himalaya mountains pierce the sky—the Aryan race, which now dominates the world, which once dominated the then known world from Siam itself, which has always from some point congenial to itself dominated the world, took its rise. There was the cradle of that race; thence it passed along, as climate and circumstances favored, always ruling, and worthy to rule, until now it is found in Western Europe, presenting the same unchanging and unchangeable characteristics that have marked it ever.

The soft and alluring groves of Antioch are laid waste. Earthquakes, and the changes accompanying terrestrial convulsions, have made desert the once smiling face of Asia Minor. Greece and Italy no longer produce the men whose energy, courage, and intelligence once laid prostrate all the world beside. Nineveh and Babylon, the seats and centers of civilization, law, and morality, are in the dust; and lewd and effeminate slaves vex the lands of Cyrus and Nimrod. Egypt also shows, in her monuments, that she once possessed a people distinguished for refinement, and filled with the sublimest ideas. In Central Asia, monuments and ruins representing an era of human progress are discovered; while now, a few scattered and miserable hordes of Tartars are all that are found passing a precarious and painful existence. Once, unquestionably, it was a blooming, prosperous land; now its trackless wastes are the seat of excessive extremes—drouth at one time, floods at another, now vicious heat, again intense and sudden cold, and hail-stones destroying every green thing, and requiring two or three days of fervent heat to melt them.

No region of the world has ever remained, for what might be called a long period of time, the seat of the higher civilization of mankind. The elements that favor the best impulses of the soul are so many, so delicate, so admirably balanced and daintily mixed, that no terrestrial region has been able to supply and retain them for any very long period of time. The slightest disturbing influence, one that may arise from a thousand different sources, suffices to throw out of tune the according forces which combine to render men happy and great; and the human character shrinks—man becomes degraded or disappears altogether. It is not difficult to conceive that a time may come when the conditions of the existence of the race of man in his best nature may be wanting altogether; and that he may become degraded, as he has been, in turn, in every clime of earth. Nor can it be difficult to perceive that the earth, by reason of the meddlesomeness of man, may become, like animals consumed by vermin, itself sick, so to speak, and its vitality, bloom, and loveliness having been destroyed, it can no longer furnish the conditions to human life in any circumstances.

At those times when other portions of the globe were the chosen places of the higher development of the human character, Europe remained a fenny morass, full of fogs and pestilential vapors, and was inhabited by the rudest of the human species. It has been but very recently, indeed, that Europe has been inhabited by civilized man. Until within a very brief time, that portion of the world has not been adapted to become what it now is. the seat of the highest and most dignified characteristics of the human race that at this time exists on earth. Very slowly has Europe emerged from deadly cold, and unbroken solitude, to supply and support the civilization it now presents. Very swiftly, in comparison, that same country may lapse into desert and barbarism.

"At the commencement of the quartenary period, the aspect of Europe, as far even as the latitude of Sicily, closely resembled the polar regions of to-day. The entire continent was wrapped in a shroud of snow. Enormous glaciers covered the whole of Iceland, Scotland, and Scandinavia. All the valleys in the Carpathian mountains, the Balkan, the Pyrenees, and the Appenines, were filled to the summit with ice. From the peaks of the Alps descended enormous glaciers, which, toward the south, stretched into the plains of Piedmont and Lombardy, as yet covered by the sea; while toward the north, another glacier, seven hundred and twenty square miles in extent and thirty-six miles in length, reached to the Jura. The European continent at this time was of much less extent than at present, the more depressed portions being under the sea." Animated life could not exist in such a country. To man in his lowest nature, to say nothing of civilized man, such surroundings made existence impossible. The time came, in the revolution of ages, however, when these glaciers began to melt. Strange fauna appeared on the scene. An elephant with crisped hair and a long mane, and a rhinoceros similarly protected, occupied the land. A gigantic ox, and bear, and tiger, together with other strange animals, made their appearance. "As late as 1799 the carcass of an elephant such as described above, was found preserved in ice, near the mouth of the Lena, by Adams, a member of the Academy of St. Petersburg; and a tuft of its hair is deposited in the geological collection of the Garden of Plants, in Paris."

It is clear that the thawing of this glacier land· could not have taken place until warmth was supplied from some source, not accessible at and during the enormous period of congelation. It has been held that the axis of the earth has changed, and the change in the temperature of the continent of Europe was the consequence. This hypothesis, however, is apparently unnecessary to the explanation of the fact. A new continent arose in the West. That event must have exerted a universal influence upon the climate and many of the essential physical conditions of the globe. Among other things, the emergence of this great continent was attended by phenomena which would cause a new distribution of heat and cold. One of those phenomena was the formation of the Gulf Stream. In the convulsions of nature resulting in the formation of the continent of America, the great range of the Rocky Mountains was thrown aloft. And here may be exemplified how strange and distant, and even unknown, an influence may be, and yet possess a power to revolutionize nature herself. The breezes of the distant Pacific ocean, blowing eastward, freighted with balmy moisture, precipitated upon the summits and sides of the Rocky Mountains immense masses of snow. With the heat of opening spring, torrents of water rush down into the valleys, and form ten thousand rivulets, and springs without number. The waters of the Missouri, the Platte, the Kansas, the Arkansas, the Red river, and the Rio Grande are collected together, and they, joined by other waters from the east, roll an irresistible mass of flood into the Gulf of Mexico. Being warmed by the heat of the tropics, it still moves on its way, and, at last, a large portion of it flows warm and genial upon the shores of Northern Europe. And now the glaciers melt away, and Europe emerges from the frozen embrace of the giant Cold. Very eminent geologists agree that one hundred thousand years is too brief an estimate of the time that it would require for the formation of the deposits at the delta of the Mississippi river. And, although it is not necessarily a fact that the Gulf Stream, as it now exists, has been flowing upon Europe from the very time that the alluvial deposits at the mouth of the Mississippi first began, yet it is not incredible that it was as long as a hundred thousand years ago that the Gulf Stream first washed and warmed the shores of Europe.

Still, it must not be assumed that the system of water-courses that forms the Gulf Stream sprang at once into form and function. There is reason to believe that the rivers of California, at least, flowed in very different directions from those pursued by the existing streams in that country. Under the ground, varying in depth from a few feet to hundreds of feet, lie, covered up by masses of earth, the beds of those earlier streams whose sources, directions, and mouths are equally unknown. But the beds of these ancient rivers are eagerly sought by the gold-hunter, for in them ages of the silent and invisible industry of nature have sown the precious sands of gold.

It is not pretended that the influence of the Gulf Stream is the only one that has made the European continent what it is in point of civilization. The drying up of the water which once covered the great African desert has opened a new source of heat. The dry and hot winds from the desert of Sahara melt the snows on the summit of the Alps and the Appenines.

Among the conditions, sensible or imperceptible, which are essential to a high state of cultivation in human character, certain qualities of climate and soil are indispensable. It is clear the greatest elevation will be attained by the human being in such surrounding circumstances as will yield a fair support at the cost of such labor and time as will still afford to him leisure for thought, reflection, and investigation in directions spiritual and intellectual. In the extreme North, cold and the sterility of the soil render it necessary that the whole mind shall be occupied in providing for the ever-pressing necessities of existence. In the torrid regions, intense heat enervates the body and represses all mental energy. But Europe affords the most favorable condition for mental activity and bodily health of any known region of the globe at the present time. There the temperature in high latitudes is much lower than in other countries; and it is removed from all such influences as favor sudden and destructive changes. These facts were observed and commented upon long before their explanations were known.

Burton, in his Anatomy of Melancholy, says: "Moscow, in 53 degrees of latitude extreme cold, one perpetual frost all winter long; and in 52 degrees of latitude sometimes hard frost and snow all summer, as Button's Bay, and yet England, near the same latitude, and Ireland, very moist, warm, and more temperate in winter than Spain, Italy, or France." And this remark respecting the comparative temperature of England and Southern Europe in winter, is corroborated at this day by Bayard Taylor. Labrador, in the same latitude as England, is uninhabitable to civilized man on account of extreme cold. The State of Ohio, which ranges from the south of France to the lower part of Italy, is much colder than those countries. The region of Ohio, and those States contiguous to it east and west, by reason of bein g situated south of, and near to, a chain of great lakes, possess better advantages for the elevation and happiness of mankind than any other portion of the American continent. East of these lakes, the country becomes more bleak; and west of them, and yet south of Paris, along the line of the North Pacific Railroad, man can scarcely exist in winter, by reason of intense cold and overwhelming storms.

Man is not, in any extended sense, the architect of his own fortune. Race is essential; but to obtain the highest development of a race, it is also essential that the surroundings must accord with the demands of the highest organism of the race, or it must perish. We see the spendid ruins of the Aryan race scattered broadcast over the world. The Hellenic features are sculptured on the ruins of the Nagkon Wat, in Siam. All the more ancient and most venerated representations of Buddha in Thibet, in Tartary, in Bengal, and Siam, and in India, have clearly defined and perfect Caucasian features. The researches of Auguste Mariette in Egypt reveal the fact, that the real founders of Egypt were of the Aryan race. Thus, Bayard Taylor describes a statue carved out of wood: "The eyes, especially, are remarkable specimens of the earliest pre-Raphaelite attempts to represent nature. They are inserted, and with a finesse of invention which almost seems a higher art. The lashes are thin rims of bronze, the whites are formed of white opaque quartz, the iris of rock crystal, and in the center of each is set a small crystal with many facets, which from every side reflect a keen point of light like that in the human eye. Herr Brugsch said to me: 'There are times when this head absolutely lives;' and I could well believe him. The statue is probably 6,000 years old, thus antedating by 3,700 years all other relics of art which are in any way worthy of being placed beside it."

The Prince Houssain, in the Arabian Nights' Entertainments, must have described something similar, when he speaks of an idol of massy gold, "whose eyes were rubies, so artificially set, that it seemed to look at the spectator in whatever direction he stood."

Again, other statues are thus described: "Nothing can be finer than the delicate individuality expressed in the two faces. He is strong, proud, asserting authority; hers kind, sympathetic, yet carried with the air of one to whom respect is inevitably paid. The type is the same as that of the 'village magistrate,' but greatly finer and nobler. The eyes are inserted in the same manner, and are even of more admirable workmanship; for they fairly gleam and sparkle, and there are moments when a human intelligence suddenly lights up the face.

"It is a remarkable circumstance. and one over which the ethnologists will doubtless break their heads. that these remains of the earliest, freest, and highest art yet discovered in Egypt should represent a quite different physical type from that of the later dynasties. That they are Caucasian, or Aryan, is evident at the first glance; that they possessed intelligence, energy, and those moral qualities which we express by the word 'character,' seems equally certain. Looking at Ra-Hotep's face, your first impression is, 'here is a gentleman.'"

Not only have all the mightier achievements of mankind been the work of the Gapetic race, but the higher forms of religion have also been the doctrines of the same race. Semitic nations have a low idea of spirituality; and it is doubtful if they ever had much idea of the immortality of the soul, except as they learned it from other nations. The doctrine of the Christian religion is essentially similar, in many respects, to the higher Aryan theology. The idea of the incarnation has in it nothing repulsive to the followers of Buddha, while it strikes an Israelite with horror.

From this imperfect survey of the vicissitudes attending the race of man in his highest perfection; from the multitude of difficulties connected with the higher conditions of his existence; from the ever-changing but infinitely far-reaching causes that effect and control the destiny of human nature, we can have no difficulty in concluding that, if our race is deteriorating, no system of education, or mere mental training, can save it from destruction. If every two or three removes from the original European stock is attended by indications of physical and mental decline, that decline can not be arrested by confining the youth of the country in close rooms from the age of six years to sixteen. Still less can that decay be arrested by a system of education which injures the physical and mental development of women. Weakly women can not rear strong children. The diverting of the energies of men and women from healthy inventive exercise to a mere habit of study and contemplation, must, in the nature of things, increase the difficulties and evils which are besetting the race of man in the New World. No one objects to education. But universal education is of more than questionable policy, either in forming a wise community, or in preparing individuals for the highest possibilities of their nature. Our system of education, vainly invented and devised to arrest the downfall of a sinking race, is hastening the catastrophy it would avert. It ingrafts a world of nervous and mental diseases upon the physical body; and by its irksome tread-mill sameness, smothers every germ of originality, and extinguishes every flash of genius. The first great conditions that elevate mankind are furnished by the Creator in the harmonious blending of essential properties in the elements of nature, above, and beyond, and before the time of man himself.

Art. 2.—Remarks on Injuries of the Heart.

By EDWARD B. STEVENS, M. D., Professor of Materia Medica and Therapeutics in Syracuse University, New York.

[At a meeting of the Syracuse Medical Society, Dr. George had presented a specimen of rupture of the heart, death taking place speedily after a sudden exertion in lifting barrels on a dray. On the post-mortem examination, the rupture, as exhibited in the specimen, was found, together with an aneurism, evidently impairing the integrity of the organ at that point. The following paper was prepared with the view of collecting some of the statistics of the injuries of the heart, as well as to show the importance of efforts to either save or prolong life by suitable therapeutics.]

Serious injuries of the heart are not at all infrequent—frequent from the usual casualties of all important organs; but this frequency is greatly increased, from that organ being of such vital importance, that it is made the frequent objective point both of the suicide and the assassin.

Hence, then, we find our surgical literature abundantly rich in cases—many of these cases bearing a close resemblance to the specimen presented to us—*i. e.*, rupture of some part of the walls of the organ; but we also have various other injuries of like grave import and fatal tendency. I shall not hesitate to borrow such points from these reports, found in various standard surgical works, as will illustrate one or two thoughts that have been suggested by the present case.

A case of rupture of the right ventricle of the heart is given in the London *Lancet*, where the patient attempted the effort of getting out of bed too soon after her delivery. In this case there was found, on the post-mortem examination, a state of fatty degeneration of the heart. This somewhat agrees with Dr. George's case—his exhibiting an impaired condition at the point of rupture, resulting from an aneurism. A case something like this was given in the Buffalo *Medical Journal* some years ago, where the rupture followed a playful tossing of the child in the arms of the mother. No pathological condition, previous, is reported in this case; but it would seem scarcely probable that rupture of any portion of the walls of the heart could follow any ordinary, or even extraordinary exertion, except there were a previous condition of disease.

So far as prognosis is concerned, there would not appear to be any ground for any expectation but a fatal result, and that very speedily. And yet some of these cases have been curious in this respect: thus, in the case in the Buffalo *Journal* alluded to, there was "a sense of fullness, warmth, and distress about the heart, with giddiness and tendency to syncope;" and yet *she lived two days, able most of the time* to be about the room.

Now, in these cases of injuries to the heart, what causes death? And if these causes point to an inevitable fatal result, have we measures which may prolong life? And, finally, if nature prolongs life with a degree of comfort for two days, or *occasionally* much longer, as we shall show presently, why not indefinitely? And why should we despair even of the successful treatment and restoration of the patient in some cases?

Velpeau says: "There are no portions of the circulating system whose wounds do not close up spontaneously. The heart itself," he says, "is an example of this." He then proceeds to give a summary of forty cases of penetrating wounds of the heart, death occurring variously in from two to twenty days; after which he goes on to show that several cases of absolute recovery have occurred. The demonstration in such cases being the post-mortem, where, after death from other causes, cicatrices have been found in the substance of the heart clearly referable to injuries known to have been inflicted many years before.

The late Prof. Blackman, who was remarkable for the accuracy and extent of his statistical information, makes a note to his edition of Motts' Velpeau, in which he remarks "that instantaneous death from wounds of the heart are much less frequent than is generally supposed." And in support of this proposition, alludes to a large number of cases that have been reported in the American medical journals.

Thus, in Dr. Ramsey's case, of Tennessee, a negro boy survived a wound of the heart sixty-seven days, and was able to walk about. Dr. Bowen (in New York *Medical Journal*) had a like case survive ten days.

Dr. Trugein, of Virginia, reported in 1850 a case—a wound of left ventricle. The patient survived five days. On the post-mortem it was found that complete cicatrization had taken place for two-thirds the extent of the original wound, and he was confident that entire recovery would have taken place, had it not been for imprudent exertions on the part of the patient.

A case was given in the London *Lancet* for 1853, in which there was a gunshot wound of the heart, the patient surviving eleven weeks—seventy-seven days! And on the post-mortem, the ball was found lodged in the left ventricle, lying wedged in its apex.

Prof. Paul F. Eve has made up a book of extraordinary cases in surgery, and his chapter on injuries of the heart alludes to most of those we have noticed here. Cases are on record of needles found in the heart, broken bits of rapier, the heart transfixed by a skewer, bits of wood imbedded in the heart, etc. These are curious enough, but perhaps chiefly useful in showing the wonderful capacity of vital resistance in the human system, even where organs of the most important character have been injured.

A number of cases of actual recovery have accumulated; and the inference is suggested that others not well understood may have been overlooked or only surmised. The London *Medical Gazette*, Vol. XVII., gives a case of recovery. Several cases are given where apparent recovery had resulted, and yet, from premature exertion, there was a fatal result, just as we might suppose would happen with a patient of the pathological conditions seen in the case of Dr. George. Velpeau and others speak of cases of recovery. Dr. Lavender reported a case of recovery to the Alabama State Medical Society at its meeting in 1850. In this case a young man was stabbed in the left ventricle, as supposed, and all the symptoms usually observed in wounds of the heart were present. There was entire recovery.

The cause of death will perhaps be obvious enough in the majority of cases, so obvious as to render the accepted prognosis of certain fatality almost a necessary one; but in others it is not so clear, and especially this is suggested in those cases where life has been prolonged for a number of days. In most cases there is enough hemorrhage to account for death; and yet in the case of Lavender, of Alabama, which recovered, there was supposed to be a loss of more than a gallon of blood; while, in such cases as those of Dr. George—a fatal rupture—the hemorrhage must certainly be limited in comparison.

The best plan of treatment is of great practical importance, even though we reject all probability of an entirely successful result. The *prolonging* of human life is always desirable, but in many cases there may be questions of property, personal rights, and a variety of considerations for which every half-hour may be of the extremest concern.

Without prolonging these remarks, I will only briefly suggest—rather theoretically at best—that in the post-mortem of those cases where there was partial recovery, we have presented the indications of the contractile action of the heart-walls and the plastic power of the blood. Rest, therefore, both of body and mind, cool applications, cool drinks, the prone position, or nearly so, would seem to promise something. Quiet, as the important indication, would be enforced on the one hand with opiates; on the other, with depressing nauseants. But would not these latter tend to impoverish the blood? Would not opiates, with such astringents as persulphate iron and alum, be of value to quiet the system and increase plasticity of the blood?

An important inquiry to me is as to the influence of the accumulation of blood within the pericardial cavity. Dr. Gross forbids all probing of the wound; but very distinguished surgeons, in the case of the Duc De Berri, as Dupuytren, indorsed by Guthrie, frequently probed the wound with the specific view of relieving the pressure of this accumulation, and claim that thereby life was materially prolonged. Guthrie says if death be impending from this accumulation, it must be relieved at all hazards.

Since writing the foregoing, a friend calls my attention to the surgery of this subject, as given in the surgical volume of the "Medical and Surgical History of the War of the Rebellion." On reference to this portion of the surgical volume, we find some new and important contributions, most of the cases being gunshot wounds. The comments made by Dr. George A. Otis very strongly confirm the views heretofore expressed in this paper, especially to the effect that "wounds of the heart are no longer considered absolutely and invariably mortal."

Art. 3.—Of a late Epidemic of Child-bed Fever; together with an Inquiry into the Connection, said to exist, between Puerperal Fever and Erysipelas.

By THOMAS C. MINOR, M. D., Cincinnati, Ohio.

[*Continued.*]

At the season of greatest total mortality from both diseases, in New England, the thermometer ranges from 35° to 45° F. A close analysis shows that in Maine and Massachusetts, states in which the diseases prevailed together, the bulk of the total mortality of the New England section is found.

Let us now turn to the Middle States.

STATION.	MONTHS OF GREATEST MORTALITY.		MAXIMUM AND MINIMUM TEMPERATURE.			
	Erysipelas.	*Puerperal Fever.*	*Erysipelas.*		*Puerperal Fever.*	
New York	March.	March.	30°	40°	30°	40°
Pennsylvania	April.	May.	49	57	58	68
New Jersey	March.	February.	38		30	31
Delaware	October.	March.	58		43	

The spring isothermals of this section, during the season of greatest mortality from both diseases, ranges from 45° at the north to 50° at the southern portion of the Middle States.

It will be noticed that in New York State, where the bulk of the total mortality from both diseases in the Middle States section belongs, that both diseases were most prevalent at the same time. The same state of affairs, it will be remembered, existed in the New England section. This fact has a significance, as bearing directly upon the supposed connection of the two diseases in question.

We shall now turn our attention to the southern section of the United States.

STATION.	MONTHS OF GREATEST MORTALITY.		MAXIMUM AND MINIMUM TEMPERATURE.			
	Erysipelas.	*Puerperal Fever.*	*Erysipelas.*		*Puerperal Fever.*	
Maryland	February.	April.	30°	38°	52°	57°
Virginia	May.	May.	59	69	59	69
North Carolina	August.	February.	75	80	43	50
South Carolina	May.	March.	70	75	56	59
Georgia	April.	April.	61	67	61	67
Florida	June.	....	77	81	...	...
Alabama	March.	May.	53	62	73	77
Mississippi	May.	May.	72	73	72	73
Louisiana	May.	March.	68	77	59	64
Texas	January.	February.	42	60	46	63
Dist. Columbia	March.	December.	44	45	31	37

The season of greatest mortality from both diseases, in this southern section, is spring. The isothermals of 50° and 70° cross this section at that season. The difference of temperature during the months of greatest prevalence from both diseases is well marked in this case. We see them both prevailing with a thermometer ranging from a freezing point to that of a tropical temperature.

STATION.	MONTHS OF GREATEST MORTALITY.		MAXIMUM AND MINIMUM TEMPERATURE.			
	Erysipelas.	*Puerperal Fever.*	*Erysipelas.*		*Puerperal Fever.*	
Ohio	March.	March.	36°	45°	36°	45°
Kentucky	August.	April.	73		57	
Tennessee	August.	May.	69	78	64	68
West Virginia	December.	February.	35		34	
Michigan	December.	January.	18	27	5	27
Wisconsin	February.	December.	18	29	21	23
Indiana	February.	March.	28		38	
Illinois	March.	March.	35	39	35	39
Missouri	March.	August.	32	36	70	76
Arkansas	September.	September.	72		72	
Kansas	October.	April.	55		55	
Minnesota	....	....	...	...	...	...
Iowa	January.	March.	15	20	32	38
Nebraska	....	....	...	...	...	...
Nevada	....	....	...	...	...	...
Oregon	....	....	...	...	...	...
California	November.	January.	41	64	31	56

We see, in this western section, that the season of greatest mortality from both diseases is spring. The isothermals of 45°, 50°, 55°, 60°, 65°, and 70° cross this western section at that season.

It is proved beyond a doubt, I think, that erysipelas and puerperal fever are subject to no particular climatic condition, and that they both prevail, in various sections of our country, at all times and seasons of the year. Nevertheless, that temperature has an agency in modifying the aptitude toward erysipelas and puerperal fever at certain seasons, there can be no doubt. Both diseases have long been classified as winter and spring complaints; that is, under ordinary circumstances, when no general epidemic tendency has manifested itself. It will always be safe to predict, then, in the absence of any general epidemic tendency prevailing in the United States, that local epidemics of both diseases will subside, and that the ordinary mortality rate from both diseases will be diminished at least 100 per cent. in the summer time as compared to winter, when the thermometer shall begin to mark a mean monthly temperature of 70° to 80° F. An axiom: *In the absence of any epidemic tendency, a woman's ordinary chances of escaping puerperal fever are twice as good in summer as in winter or spring.* A theory: A mean monthly temperature of 90° F. would entirely destroy the tendency to either disease. So much for the effects of climate.

We shall now turn to the seeming effects of altitude on both diseases, using for this purpose some figures from the tables of altitudes published in the recent work of our distinguished countryman, Dr. J. M. Toner,* of Washington city.

EFFECTS OF ALTITUDE ON THE TWO DISEASES.—Let us now take the average elevation of the different states above the sea-level. The approximated averages are from Toner's tables. For convenience sake I shall arrange the following:

TABLE I.

States having an altitude of from 50 *to* 600 *feet.*

STATE.	AVERAGE ALTITUDE.	TOTAL POPULATION.	ERYSIPELAS.	PUERPERAL FEVER.
Tennessee..........	600	1,158,520	85	82
Vermont...........	600	330,551	22	5
Kentucky..........	600	1,321,011	93	83
Georgia............	575	1,184,109	38	76
North Carolina...	550	1,071,362	52	52
Texas................	450	818,899	91	86
Massachusetts.....	400	1,457,351	150	51
Maine..............	375	626,915	47	8
Maryland..........	375	780,894	63	19
Alabama...........	375	996,992	51	53
South Carolina....	350	705,606	21	15
Arkansas...........	300	484,471	51	56
Connecticut........	300	537,454	38	15
Mississippi........	275	827,922	36	45
New Jersey........	200	906,096	62	9
Rhode Island......	125	217,353	21	1
Dist. Columbia....	115	131,700	13	6
Delaware...........	100	125,015	12	1
Louisiana..........	75	726,915	52	24
Florida.............	60	188,248	9	5
Total...........		14,597,384	1,007	692

We see, in these states having an average altitude above the sea-level approximated at 600 feet and under, that one person out of every 14,500 of aggregate population, on a rough estimate, died of erysipelas, while one woman out of every 21,100 of aggregate population died of puerperal fever.

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* Dictionary of Elevations and Climatic Register of the United States. By J. M. Toner, M. D. New York, 1874.

TABLE II.

States having an altitude of from 600 *to* 1,000 *feet.*

STATE.	AVERAGE ALTITUDE.	TOTAL POPULATION.	ERYSIPELAS.	PUERPERAL FEVER.
Iowa	900	1,194,320	85	42
Wisconsin	850	1,064.985	47	31
Missouri	800	1,721,295	188	161
Michigan	800	1,187,234	106	36
New York	800	4,387.464	455	235
Pennsylvania	750	3,522,050	282	108
Ohio	700	2,665,260	272	112
Virginia	700	1,225,163	73	69
Indiana	675	1,680,637	183	87
Illinois	625	2,539,891	264	149
New Hampshire	625	318,300	28	6
Total		21,506,599	1,983	1,036

We see that in these states having an altitude above the sea-level of from above 600 to 1,000 feet, that one person out of every 10,850 died of erysipelas, while one woman out of every 20,760 of aggregate population died of puerperal fever.

TABLE III.

States having an altitude of 1,000 *feet and upward.*

STATE.	AVERAGE ALTITUDE.	TOTAL POPULATION.	ERYSIPELAS.	PUERPERAL FEVER.
Nevada	5,400	58,711	2	2
California	2,500	582,031	37	13
Oregon	2,000	101.883	5	2
Nebraska	1,700	129,322	5	4
Kansas	1,350	373,299	46	37
Minnesota	1,100	446,056	14	13
West Virginia	1,050	442,014	37	13
Total		2,133,316	146	84

In those states having an altitude of 1,000 feet and upward, that one person out of every 14,600 of population died of erysipelas, while one woman out of every 24,920 of aggregate population died of puerperal fever.

Conclusions.—A more concise statement, as regards the influence of altitude, will be seen in the following table:

ALTITUDE.	DEATHS FROM ERYSIPELAS.	DEATHS FROM PUERPERAL FEVER.
50 to 600 feet	1 to 14,500	1 to 21,100
600 to 1,000 feet	1 to 10,850	1 to 20,760
1,000 to 5,500 feet	1 to 14,600	1 to 24,920

It will be seen, at a first glance, that the higher the altitude the less seems to be the tendency toward either disease; that is what we would be led to infer from reading this statement. It must not be forgotten, however, that all the large cities in the United States, which largely swell the mortality list from puerperal fever, have none of them an elevation of 600 feet, although in this statement, taken from Toner's tables, the average of the states alone is given, and such cities as New York (altitude 50 feet), Philadelphia (altitude 50 feet), Boston (altitude 110 feet), St. Louis, Chicago, Cincinnati, and New Orleans, which have an elevation of less than 600 feet, are classified along with the states having an elevation of from 600 to 1,000 feet above the sea-level. The dense population in the states included in Table II. must also be taken into consideration, as likewise the widely separated and isolated population included under Table III. From a careful consideration of this subject I am forced to the following conclusions:

1. *That altitude rather favors the development of any erysipelatous tendency that may exist.*

2. *That altitude tends to diminish the tendency toward puerperal fever.*

The influence of altitude on diseases accompanied by cutaneous symptoms finds no better example than that afforded by the census tables of Nevada, in 1870. In this state, having an average altitude of 5,400 feet, almost one-fourth of the total mortality was from *scarlet fever.*

HYETAL INFLUENCES.—It was the intention of the writer to have noticed the influence of the wet, as compared with the dry seasons, upon the two diseases under discussion. For this purpose new tables had to be arranged. In the absence of more accurate information, these tables were so incomplete as to discourage any further investigation in this line—the tables would have been too voluminous for insertion in this short article. From the only table which I fully completed, which was one for the New England section, I am inclined to think that *both diseases prevail whether the season be wet or dry, and that they are not subject to any particular law in this respect.* However, as I before remarked, the incomplete and unsatisfactory mode of examination I pursued will not justify me in reasserting the conclusion I arrived at from the investigation of a single section. To the future student of the two diseases I leave the study of this truly important problem of hyetal influence, as well as that of hygrometic influences.

AGE AT WHICH THE GREATEST MORTALITY OCCURS.—From table 5 (pp. 18, 19) of the Ninth Census, I have compiled the following table:

TABLE I.

Showing the age of the decedents from erysipelas.

AGE.	MALES.	FEMALES.
Age unknown	3	...
Under 1 year	529	475
1 year	92	90
2 years	42	52
3 years	20	29
4 years	12	15
5 to 20 years	147	144
20 to 50 years	313	280
50 to 95 and over	492	427
Total	1,650	1,512
		1,650
Grand total		3,162

From this table it is easy to see that *infancy* and *old age* are the periods of life when the human being is most apt to become the victims of erysipelas. It has long been held, by most medical writers, if I be not mistaken, that erysipelas was a disease more liable to attack the young and the aged than those in the prime of life. This conclusion was no doubt arrived at from a study of mortality statistics. I do not believe that such is the case myself. The truth is, that infancy and old age offer the least *resistance* to violent attacks of any kind of disease; and because these periods of life show the greatest number of victims from erysipelas, it is no proof that infants and the aged are more susceptible to that disease than those in the prime of life. The army statistics before given, showing the frequency of the disease among the troops of the United States army during the "late misunderstanding," amply corroborate this statement.

TABLE II.

Showing the age of the decedents from puerperal fever.

Age unknown	2
10 to 15 years	3
15 to 20 years	165
20 to 25 years	451
25 to 30 years	405
30 to 35 years	335
35 to 40 years	270
40 to 45 years	158
45 to 50 years	28
50 to 55 years	7
55 to 60 years	4
Total	1,828

I shall not enter into any discussion regarding the age at which puerperal fever is most prevalent at this point. The table is inserted here merely to keep up the connection of the subject and as a matter of permanent record.

We shall now turn to the consideration of an epidemic of puerperal fever which occurred in this county (Hamilton) during the year just passed. The conclusions to be drawn from that epidemic, and a study of the tables we have just finished, furnish the basis for our argument, "Regarding a late epidemic of puerperal fever, with an inquiry into the connection said to exist between puerperal fever and erysipelas."

SECTION FOURTH.

REGARDING EPIDEMIC PUERPERAL FEVER AND EPIDEMIC ERYSIPELAS, AS THEY PREVAILED TOGETHER IN THE CITY OF CINCINNATI DURING THE YEARS 1872–73.

Situated in what is known as the Miami Valley, in the extreme southwestern corner of the State of Ohio (latitude 39° 06′, longitude 84° 29′, altitude 543 feet above tide-water), is the city of Cincinnati. According to Dr. Drake, Cincinnati was first made a settlement on the 26th of December, 1788. Says our illustrious authority: "The site of the city, on the left bank of the Ohio river, consists of two plains or bottoms—one near the river, comparatively narrow, and composed of argillaceous alluvion; the other in its rear, six or eight times as broad, diluvial, and made up, like the higher or second terrace generally, of pebbles, gravel, and sand, with a covering of loam and soil. The lower plain widens as it stretches down the river, and its back part, on the settlement of the town, was a narrow, shallow, and heavily timbered pond or swamp, overflowed by ordinary spring floods of the river, which ascended upon it along the marshy rivulets by which that tract was partially drained into the Ohio, below the town. In 1793 the whole of the lower plain was submerged; and in 1832 and 1848 the inundation was repeated, upon every part which had not been raised with materials washed by the rain or hauled from the adjacent high terrace. For many years after the settlement of the village the drainage of both terraces was in the low grounds of this bottom, where it accumulated in part upon the surface, and partly in the numerous pits formed by the manufacture of brick. . . .

From the lower plain to the upper and older, the ascent is between fifty and sixty feet. With the growth of the town the front margin of the latter, which was originally a bluff bank, has been graded to a gentle declivity, and the removed material used, as already intimated, to raise the back part of the lower bottom; so that the drainage of the city is now chiefly by the streets directly to the river. The upper terrace, as was the case with the lower, slopes back from its southern or river margin, and, at the average distance of a mile, terminates against the base of the Mt. Auburn range of blue Silurian limestone hills; whence, during rains, there descend upon it several torrents, which coalesce and flow nearly in the same direction with the river. To the east, this terrace is terminated by the narrow valley of a hill torrent called Deer Creek. Beyond this ravine stands Mt. Adams, between the base of which and the eastern margin of the city terrace the low ground has been raised above the highest river floods. . . . The Western Canal, from Lake Erie, generally called the Miami Canal, traverses the back part of the upper terrace, from northwest to southeast," etc.

It would not perhaps be necessary to speak of the topography of the city at all, were it not for the fact that these epidemics were clearly localized. At this point, for certain reasons, I shall only give the locality of the puerperal fever epidemic.

There were three groups of cases, the first of which occurred in the "West End," that western portion of the city which is most exposed to the prevailing southwest winds, which come to it over what is known as "Millcreek Bottom," a tract of lowlands which are extremely marshy, owing to the backwater from the Ohio river, that at intervals submerge many acres during its periodic risings. If a map of the city of Cincinnati be taken and spread upon a table, and a tape-line placed upon the point marked Findlay and John streets, and from thence a straight line be drawn to the corner of Cutter and Seventh, and from thence a line running directly westward to Freeman street, and then southward to the Ohio river, including that district lying directly west of the Indianapolis Railroad track, the eastern limit of the "West End" epidemic of puerperal fever can be tracked by its mortality record. Twenty-seven deaths occurred in this group, not counting, however, the deaths occurring at Warsaw and Fairmount, points lying west of Millcreek. An almost complete line of demarcation exists between this group and the second group. The connecting link, if there be any, is the Cincinnati Hospital.

The second group of cases must have occurred, judging from the mortality, within the following limits: A line running from Quarry and Poplar streets to Fourteenth street and the Miami Canal, then southward along the canal to North Canal street, thence eastwardly on a line with North Canal and Hunt streets to Pendleton street, north on Pendleton street to Liberty, thence a line drawn from the corner of Liberty and Pendleton to Quarry and Poplar streets. Within these boundaries 28 deaths from puerperal fever occurred during the epidemic.

The third group of cases includes those occurring on Mt. Adams.

It will be at once noticed that these three groups of cases are isolated from each other; also, that the central and southern portions of the city were almost exempt from the disease. In the three groups named, the total mortality was 60. How many cases would this probably represent? From figures in my possession, regarding the duration of last illness of the various decedents, I am led to infer that the form of the disease was not of the most malignant character, and that the mortality rate was exceedingly light for such a disease as puerperal fever. I think that it would be fair to estimate the mortality, as compared to the whole number of cases, to be about 25 per cent. This would give about 240 cases to the two principal groups.

If the topographical sketch of Cincinnati, as quoted from Drake, will be recalled, it is seen that the "West End" group of cases occurred, for the most part, in that portion of the city overlooking the marshes and ponds of the Millcreek bottom-lands. The second group of cases was on the back portion of the upper terrace, having the canal in front of it and the limestone bluffs of Mt. Auburn at the rear. The third group of cases occurred on Observatory Hill (Mt. Adams), one of the highest points in the city, it being about 300 feet higher than the upper terrace.

Where was the heaviest mortality from erysipelas in the meantime? Taking a chart which has the puerperal-fever districts mapped out on it, we now locate, by dottings, the point at which each death from erysipelas occurred. In this way it is easy to discover whether the two diseases existed together or whether they were isolated from each other.

We see the following condition of affairs: During the time puerperal fever was prevailing, erysipelas seems to have also been epidemic, and a mortality of 20, at least, is noticeable in the districts infected by puerperal fever. When the slight mortality rate from erysipelas is remembered, it will be seen that these 20 deaths must have represented a large number of cases. It is a fact worthy of record, then, that the neighborhoods suffering most from puerperal fever suffered also to the greatest degree from erysipelas; and it is also a fact that the scattering deaths from puerperal fever occurred in the immediate vicinity of the scattered cases of erysipelas. To be more explicit, *both diseases were most prevalent in the same localities.*

Let us now look at the two diseases as they had prevailed in this city for several years previous to the epidemic.*

From November 9, 1865, to December 31, 1866, 12 women died of puerperal fever. The average age of 11 of the decedents was about 30 years. As regards nativity, 6 were native born, 4 were Irish, and 2 were Germans. During the same year there were 11 death from erysipelas (6 males, 5 females); 8 of these decedents were children and 3 adults. The deaths from both diseases occurred in different portions of the city, and no connection seems to have existed between them.

In 1867, there 18 deaths from puerperal fever. Of these, 14 were Germans, 1 was Irish, and 3 were native born. The average age of the 18 decedents was 30 years. During the same period there were 8 deaths from erysipelas (5 males and 3 females). No connection seems to have existed between the two diseases.

In 1868, there were 16 deaths from puerperal fever. Of the decedents, 10 were Germans. The average age of 15 of the decedents was 31 years. During the same period 18 persons died from erysipelas (13 males and 5 females). Of these one-half were infants. No connection seems to have existed between the two diseases.

In 1869, 10 women died of puerperal fever. Of these, 7 were Germans, 1 was Irish, and 2 were native born. The average age of the decedents was 30 years. During the same year 14 persons died from erysipelas (10 males and 4 females). All but 3 of the decedents were adults. No connection seems to have existed between the two diseases. In April of this year we notice a death-certificate signed by Dr. —— (a case of puerperal fever), and the May following, another certificate for a puerperal fever case, signed by the same physician. These two cases occurred in the same locality. The question of the transmission of the disease might arise here, but let it pass as a probable coincidence.

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* The figures given in these tables will probably not coincide with the "Health Office Reports" of this city, published prior to 1873, for this reason: It was necessary, in order to study the location of every case, to go over a death-registry which contains upward of 35,000 names. Sometimes a death-certificate would lack the name of the street on which the death occurred, or even the ward. In such a case, or where, from other circumstances, the certificate seemed to be doubtful, I have thought best to omit it. The cases here tabulated can be considered as being very nearly a correct list.

In 1870, 14 women died of puerperal fever. Of these, 5 were Germans, 4 Irish, 1 was French, and 4 native born. The average age of the decedents was 32 years. During the same time 19 persons died of erysipelas (14 males and 5 females); 8 of these were infants, the rest were adults. No connection seems to have existed between the two diseases. Dr. —— lost two cases of puerperal fever in February of this year. Both cases, we notice, died the same week. These two cases occurred at remote points. Here, again, the question of transmission of the disease by the physician arises. In the absence of absolute information we conclude that the occurrence of these two deaths was merely a coincidence.

In 1871 (year of the small-pox epidemic), 10 women died of puerperal fever. Of these, 4 were Germans, 2 were Irish, and 4 were native born. The average age of 9 of the decedents was 27 years. During the same period 12 persons died of erysipelas (5 males and 7 females). Of these, 9 were infants. No connection seems to have existed between the two diseases.

In 1872, early in this year an epidemic tendency toward erysipelas and puerperal fever was noticed. In March, quite a number of deaths from erysipelas occurred, some of them in the Cincinnati Hospital. No deaths from puerperal fever are noticed in February or March of this year; but in April, the month following the commencement of the erysipelatous tendency, there were five deaths from puerperal fever. As the weather became warmer and drier, the tendency toward puerperal fever seemed to have subsided, and in July we notice only one death, while the fall month of September had likewise one death recorded from puerperal fever. All during the summer a tendency toward erysipelas seemed to linger; and judging from the number of deaths occurring at the Cincinnati Hospital in the first and second quarters of the year, a decided epidemic tendency must have been noticed in that institution. We also notice two deaths occurring from erysipelas neonatorum, on Church street, in the month of July. These cases were attended by Dr. ——, a homeopathic physician. In the month of September but one death from erysipelas is recorded; in October, two deaths; in November, the commencement of the epidemic we are about to notice, five persons died from erysipelas. During the months of November and December, 1872, then, *puerperal fever and erysipelas prevailed together as epidemics.*

In 1872, 40 women died from puerperal fever. Of these, 16 were Germans, 5 were Irish, 1 was English, and 18 were native born. The average age of the 40 decedents was 28 years. During the same year 43 persons died of erysipelas (23 males and 20 females). Of these decedents, 18 were children.

The following tabular statement will give an idea of the two diseases as they have prevailed in Cincinnati for some years past, and up to, and including, the first two months of the epidemic:

TABLE I.

Showing mortality from puerperal fever from 1866 *to* 1873.

YEAR.	SPRING.			SUMMER.			AUTUMN.			WINTER.			YEAR.
	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Total.
1866.........			3	1		1	2	1		3	1		12
1867.........		1		1	1	2	1	1	3	3	1	4	18
1868.........	2	3	1		1	1	1	1	1		3	2	16
1869.........	1	2	1	1	1			1	1			2	10
1870.........	3	1	1	1	2	1			1	1		3	14
1871.........	3	3			1		1			1		1	10
1872.........		5	1	4	1	2	1	1	6	16	3		40
Total....	9	15	7	8	7	7	6	5	12	24	8	12	120

The slight mortality, for some years before the epidemic, from puerperal fever, in this city, having an estimated population of 250,000 persons, is worthy of note; as is also the increase in the same ratio as puerperal fever of the erysipelas mortality, during the same period, as exhibited in the following table:

TABLE II.

Showing mortality from erysipelas from 1866 *to* 1873.

YEAR.	SPRING.			SUMMER.			AUTUMN.			WINTER.			YEAR.
	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Total.
1866	1				1			1	3	3	2		11
1867	1	1		1	2			1		1	1		8
1868	3	1	1		1	2	2	1	2	2	1	2	18
1869	3	3			1		1	2		2	1	1	14
1870		4	3	3	1	1		1	3		1	2	19
1871				2	1			1		2		5	12
1872	7	2	3	3	4		1	2	5	10	3	3	43
Total	15	11	7	9	11	3	4	9	13	20	10	13	125

No better illustration of the connection of the two diseases can be needed. Here we see an *increase in erysipelas* followed by the *outbreak of puerperal fever.*

Before entering more fully into the details of this epidemic, I shall briefly refer to the nativity of the decedents from puerperal fever during the period previously noted:

TABLE III.

Showing the nativity of the puerperal-fever decedents from 1866 *to* 1873.

NATIVITY.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	Total.
American	6	3	1	2	4	4	18	38
Irish	4	1	4	1	4	2	5	21
German	2	14	10	7	5	4	16	58
English			1				1	2
French					1			1
Total	12	18	16	10	14	10	40	120

The mortality among the German population alone is seen to be almost as much as that of all other nationalities, including our own. Not only is this the case, but if the death-certificates be carefully examined, the larger portion of the *native-born* decedents show that they are of German extraction, judging from the Teutonic names and other signs. The decedents from erysipelas are, many of them, Germans or of German extraction likewise.

Let us now look at puerperal fever as it prevailed in 1873. In January there were 22 deaths; February, 16; March, 12; April, 9; May, 7; June, 2; July, 3; August, 2; September, 2; October, 2; November, 2; December, 3—making a total of 82 deaths from puerperal fever in 1873. During the same year 28 persons died of erysipelas. If we now add the victims who perished in November and December, 1872, we find a total mortality from puerperal fever, 104; from erysipelas, 43. These are the mortality figures of the epidemic of 1872–73.*

For the purpose of giving the daily mortality, and the meteorological observations made during the time of the epidemic, I append the two following additional tables. Table IV. was kindly compiled for me by Mr. Chapman, clerk of the Board of Health. Table V. is the meteorological records furnished to the Health office by the United States signal office at this station.

TABLE IV.

Mortality from puerperal fever, peritonitis, convulsions, and erysipelas for 1873.

Date.	Puerperal Fever.	Puerperal Peritonitis.	Puerperal Convulsions.	Erysipelas.	Total.
Jan. 1				1	1
2	1			1	2
3				1	1
8		1			1
9		2			2
10	2				2
11	1	1			2
14		1		1	2
15		1			1
16		2			2
18	1			1	2
21		1			1
22	1				1
25				1	1
26				1	1
27	1				1
28		2			2
29		2			2
30		1			1
31		1			1
Feb. 4				1	1
5	3				3
6		2			2
7		1			1
8				1	1
9	1				1
10	1				1
11				1	1
14	1				1
17		1			1
18	2				2
Feb. 19	1				1
20	2				2
21				1	1
24	1				1
26				1	1
Mar. 4	2				2
12	1			1	2
13	1			1	2
14	1				1
18		1			1
20	1	1			2
21	1				1
22	1				1
25	1			1	2
31	1				1
Apr. 3	1				1
8				2	2
9		1			1
10	1				1
17		1			1
23		1			1
25		1			1
26	1				1
27	1				1
29	1			1	2
May 1				1	1
3		1			1
4	2				2
7	1				1
14		2			2
2				1	1
May 21	1				1
22				1	1
June 11				1	1
16				1	1
18	1				1
22				1	1
23		1			1
July 7		1			1
10	1				1
16	1				1
19			1		1
22			1		1
Aug. 2	1				1
24	1				1
Sept. 4	1				1
11	1				1
Oct. 2		1			1
6				1	1
7		1			1
Nov 7	1				1
10	1				1
20				1	1
Dec. 7	1				1
13		1			1
16		1			1
17				1	1
20				1	1
Total.	48	34	2	28	112

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* "No month was free from fatal cases of puerperal fever, though the greatest mortality occurred in the months of January, February, and March. The total deaths from puerperal fever were 82, a number equal to the total previous mortality from the same cause since the organization of the present board of health, in April, 1867." Vide "Seventh Annual Report of the Board of Health," p. 33, J. J. Quinn, M. D., Health Officer, Cincinnati, 1874.

TABLE V.

Meteorological record for the year 1873, *at Cincinnati.*

Week ending 1873.		Mean Temperature.	Mean Barometer.	Mean relative Humidity.	Amount of Rain or Melted Snow. In.	Prevailing Winds.	Velocity of Wind. Miles in an Hour.	State of Weather.	Av. Weekly Stages of Ohio River.
January	4	40.25	30.060	69.56	.58	N. S. & W.	1 to 16	Two rainy days.	20.60
	11	26.28	30.257	75.54	.31	N. W. & S.	2 to 25	1 rainy day; clear & fair.	26.80
	18	36.96	29.769	74.78	.80	W.	2 to 16	4 rainy days; cloudy.	17.10
	25	36.10	30.055	74.78	.85	W. & S. W.	0 to 17	6 rainy days.	26.80
February	1	22.71	30.625	72.64	.13	N. W. & N.	0 to 16	2 rainy days; fair & clear.	19.80
	8	40.43	29.930	72.39	.86	N.S.&S.W.	0 to 17	1 rainy day; fair & clear.	20.00
	15	35.78	30.091	77.60	.52	N. S. & W.	0 to 16	3 rainy days.	29.20
	22	37.86	29.977	70.10	1.57	N. W. & S.	0 to 16	3 rainy days.	38.70
March	1	28.88	30.118	75.60	1.54	N. W. & W.	0 to 19	3 rainy days.	31.30
	8	35.07	30.365	65.07	.20	N. & N. E.	2 to 20	4 rainy days.	16.10
	15	47.53	30.060	53.92	.49	N.W.&S.E.	0 to 28	3 rainy days.	14.40
	22	44.84	30.013	58.46	.31	N. W. & N.	0 to 20	2 rainy days.	20.10
	29	40.68	29.859	68.71	1.28	N.E.&S.W.	4 to 20	5 rainy days.	30.50
April	5	56.86	29.851	57.25	.51	S. W. & S.	1 to 22	2 rainy days.	37.11
	12	57.21	29.952	63.07	1.37	W. & N. W.	1 to 20	4 rainy days.	30.90
	19	51.75	29.892	62.21	.53	S. E. & E.	1 to 16	4 rainy days.	32.00
	26	47.43	29.964	59.50	.19	N.E.&N.W.	0 to 22	3 rainy days.	24.50
May	3	57.39	29.858	61.68	1.05	S. W. & E.	1 to 16	4 rainy days.	19.80
	10	62.89	29.953	61.39	1.50	N. E. & E.	0 to 16	4 rainy days.	32.00
	17	62.94	29.897	54.42	.02	N.E. & S.E.	1 to 16	2 rainy days.	33.70
	24	73.46	29.878	59.39	.42	N. E. & S.	1 to 14	4 rainy days.	20.00
	31	70.86	30.013	62.59	.85	N. & S. E.	0 to 12	2 rainy days.	18.80
June	7	76.36	29.976	53.17	.02	E. & S. E.	1 to 14	1 rainy day.	12.30
	14	73.53	29.971	62.18	1.53	E. & S. E.	0 to 16	4 rainy days.	9.10
	21	79.14	29.913	56.89	.00	W. & S. W.	0 to 15	Clear and fair.	8.40
	28	81.61	29.993	63.86	1.26	S.E. to S.W.	1 to 10	3 rainy days.	7.60
July	5	79.04	29.885	65.00	2.04	S. to W.	0 to 12	5 rainy days.	9.10
	12	74.57	29.999	62.14	.20	N. & N. E.	0 to 13	2 rainy days.	17.70
	19	79.50	30.023	65.79	1.39	S. & S. W.	0 to 16	4 rainy days.	13.00
	26	76.61	30.076	60.93	.14	N. W. & E.	1 to 12	3 rainy days.	14.30
August	2	78.96	30.008	70.32	2.07	S. E. & S.	1 to 12	5 rainy days.	9.80
	9	76.71	30.109	62.54	.72	S. E. & E.	1 to 13	2 rainy days.	11.50
	16	75.39	29.974	67.68	1.44	N. & N. E.	1 to 14	3 rainy days,	9.00
	23	74.68	30.059	64.89	.00	N. E. & N.	1 to 10	Foggy; clear and fair.	9.30
	30	76.93	30.038	70.18	1.41	N. E. & E.	1 to 12	2 rainy days.	10.10
September	6	76.18	30.015	58.43	.08	N. & W.	0 to 15	1 rainy day; fair.	11.00
	13	69.14	30.121	59.93	.05	N.E.& S.W.	0 to 16	3 rainy days.	7.40
	20	64.29	30.068	52.96	.45	N.W.& S.E.	0 to 15	1 rainy day; fair & clear.	5.50
	27	64.21	30.048	72.82	1.39	S.E.to S.W.	0 to 13	3 rainy days.	4.30
October	4	63.32	30.083	64.14	.72	N. E. & S.	1 to 17	2 rainy days.	3.10
	11	56.14	30.096	59.00	.39	S. E. & W.	0 to 19	2 rainy days.	3.10
	18	60.39	30.226	62.21	.40	S. to S. E.	0 to 12	1 rainy day; fair & clear.	3.10
	25	48.43	30.102	59.00	.39	S. E. & W.	0 to 19	2 rainy days; fair & clear.	5.80
November	1	41.50	30.106	70.11	.83	S. E & S.W.	0 to 18	3 rainy days.	21.00
	8	48.21	30.148	67.47	.27	N. & N. E.	0 to 12	4 rainy days.	18.00
	15	41.11	30.008	62.43	.00	N. W & W.	1 to 16	Fair and clear.	10.30
	22	37.86	29.860	67.57	.46	S.W. & S.E.	1 to 16	3 rainy days.	12.00
	29	37.75	30.048	72.96	1.77	N. W. & W.	2 to 14	3 rainy days.	19.70
December	6	43.43	30.255	68.75	2.61	N.E. & S.E.	2 to 22	3 rainy days.	25.10
	13	46.75	30.152	79.11	2.56	N. E. & S.	2 to 17	7 rainy days.	30.50
	20	40.75	30.196	74.57	.18	S. E. & W.	1 to 11	1 rainy day; cloudy.	40.50
	27	38.77	30.089	69.57	.12	N. E. & E.	0 to 16	2 rainy days.	25.50
	31	38.21	30.181	68.68	.00	S. W. & W.	5 to 13	Fair and cloudy.	15.20

Barometer corrected for temperature, elevation above the mean level of the sea, and instrumental error.

Rainy day signifies a fall of at least .01 of an inch of rain or melted snow.
Mean barometer for year, 30.0314 inches.
Mean temperature for year, 56 deg.
Highest temperature of year, June 23.
Lowest temperature of year, January 30 and March 4.
Total amount of rain and melted snow, 41.38 inches.
Prevailing direction of wind, southwest.
Heaviest rain-fall in any month of year was in December.
Low water mark in the Ohio river indicates 20 inches of water in the channel.

The nativity of the decedents from puerperal fever, from January 1st to July 31, 1873, at which time the epidemic subsided, was as follows:

United States	24
Ireland	7
Germany	38
France	2
Total	71

At least thirty per cent of those born in the United States were of German extraction, as indicated by their names and their residence in the German quarters of the city. The most of the erysipelas mortality was among the Germans and persons of German extraction.

It is possible that some of our physicians may not believe in the connection of the two diseases. I am led to infer this from the fact that several of our most highly educated physicians seem to have been in attendance upon puerperal-fever and erysipelas cases at the same time. Some physicians, also, seem to have had no fear of attending *several* puerperal-fever cases at the same time A careful study of the *death-certificates* shows some curious things. Perhaps we may be wrong in drawing inferences from noticing such curious coincidences as the following:

Dr. A. Loses a patient from puerperal fever on the — of July; duration of illness, 8 days. Six days afterward, another "death-certificate"—puerperal fever; *duration of illness*, 8 *days.* On August —, "death-certificate," from erysipelas. Four days afterward, "death-certificate," from puerperal fever; *duration of illness*, 6 *days.* It is needless to say that Dr. —— lost other cases from both diseases. I infer only from the death-certificates that he is not a believer in either the contagiousness of puerperal fever or in the connection of the puerperal-fever poison with that of erysipelas.

Dr. B. On February —, a "death-certificate," from puerperal fever; duration of illness, 8 days. Three days afterward, a "death-certificate," from erysipelas. The deaths from erysipelas and puerperal fever occurred a few doors from each other, as was also the case in Dr. A's case. It is useless to remark that Dr. —— lost other cases from both diseases; and it is very evident he is not a believer in the connection of the two disease—at least he seems to have attended cases of erysipelas and puerperal fever at the same time.

[TO BE CONTINUED.]

New Remedies and Selections.

By J. S. UNZICKER, M. D.

Fluid Extract of Chestnut Leaves.—Dr. J. Eisenman, assistant physician at the policlinic of Vienna, has experimented with this preparation made from the leaves of the European variety of castanea vesca, collected during the months of June, July, and August. The remedy was tried only in such cases of whooping-cough which had but recently entered into the spasmodic stage, and in which the subsequent course of the disease could be well ascertained. Tried in comparison with belladonna, extr. cannabis indica, chloral-hydrate, inhalation of petroleum vapor, etc., the results were such that the author calls the attention of European physicians to this remedy, which was prepared by the formula published in the *American Journal of Pharmacy*, 1871, page 530.—*Zeitschrift d. Oester. Apoth. Ver.* 1874.

Propilamina.—This has lately fallen into almost entire disuse, but according to Namias is of sufficient value in the treatment of disease to merit extensive application. In the treatment of various forms of rheumatism, the author has found it uniformly reliable. He also finds it remarkably active in reducing the action of the heart; regards it as superior to digitalis, and preferable to it, if for no other reason, on account of its comparative harmlessness. Its action on the urinary secretions is similar to that of digitalis.—*Proc. Am. Phar. Assoc.* 1873.

Lotion for Fetid Feet.—Permanganate of potash, fifteen parts; distilled water, one thousand parts.

The feet to be washed twice a day with the lotion. They are then to be carefully dried, and powdered with lycopodium.—*Drug Circular*, 1874, p. 94.

Remedy for Toothache.—Take cloroform ʒij., morph. mur. gr. ij., ol. sassafras recent, gtt. vj. Mix. Saturate a pledget of cotton, and pack closely into the cavity of the tooth.

Carbolic Acid for Diarrhea in Children.—Dr. Smith, of Moscow, has used with good results—a teaspoonful having been given every two hours to a child eight months old.

℞ Carbolic acid.
Spirits of wine, āā 15 centigr.
Peppermint water, 20 grm.
Tinct. opium, 2 drops.
Muc. gum arab.
Syrup of poppies, āā 10 grm. M.

Milk is absolutely unallowable during the use of the medicine. Mucilaginous drinks in small quantities and at regular intervals may be given.—*Courrier Medical.*

Digitalin.—In the crystallized form, as prepared by the process of Nativelle, has been studied in its influence upon the human organism by G. Daremby and A. Mégerand, who found that under the influence of one-fifth milligramme during three days, the passage of urine increased 25 per cent.; while the urea was reduced 30 per cent., the pulse was reduced to 40, and the temperature of the body sank two degrees. On the sixth day, vomiting occurred.—*Ibid.*

Snuff for Facial Neuralgia.—Dr Scriffigano recommends:

℞ Quinia citrat. ℥j.
Strong tobacco snuff, ℥jss.
M. Sig. To be used as required, in neuralgia.

The Hypodermic Use of Ether has been found beneficial in collapse of hemorrhage. It is injected till the breath shows its presence. There are no unpleasant local effects.

Antidote to Carbolic Acid.—Dr. Husemann recommends the saccharate of lime as the best antidote to carbolic acid.—*Drug Circular.*

Correspondence.

Editor of the Lancet and Observer—SIR: The frequency of deaths from chloroform of late years gives the subject a painful interest, and, very naturally, commands our closest attention. And under hardly any other circumstances is our sympathy for a brother practitioner more surely stirred, than when he is so unfortunate as to lose a patient from the effects of an anæsthetic. That such feelings should be so general is easily understood; for such occurrences being regarded purely accidental, and, as a rule, happening in spite of all care, it may fall to the lot of the most prudent and cautious among us to lose a patient in this way. Perhaps in nothing else do all physicians stand on a perfect equality more than in their liability to meet with one of those unfortunate occurrences. It is well known that those who have given the closest attention to this subject, making it indeed the specialty of their lives, have had to record their own unfortunate cases; proving that great experience and the most intelligent care are yet insufficient to guard against fatal effects from the use of this agent. In a recent number of the *British Medical Journal*, a case that happened in this city lately, is referred to as "another of those distressing accidents, the frequent repetition of which has already given Cincinnati an unenviable notoriety." And still another has happened since that which is the subject of the above quotation! In connection with this subject, I desire to ask attention, through your journal, to one point only—that is, the mode of administration. Various inhalers, some of them very elaborate in their construction, have been devised; but none of them have attained to anything like general popularity. In this city, I believe, the almost universal practice is to administer the agent on some article of cotton or linen fabric, such as a towel, napkin, or handkerchief. This is simple enough certainly. And as this method has been dubbed Sir James Simpson's method, it is accepted as both orthodox and efficient. Notwithstanding the association of so distinguished a name with this mode of giving chloroform, I beg leave to offer my protest against it, as being fraught with danger to the patient. For, though, in theory, the fluid is dropped gradually on the cloth, which is held at a proper distance from the face to insure the free access and admixture of air with the vapor, yet in fact, in many cases, the distance at which it is held is constantly varying. And when the attention of the administrator is attracted from his important duty, as is so apt to happen, the distance may be increased to the degree of a practical withdrawal of the anæsthetic on the one hand, or diminished so much as to afford the vapor in a perilously concentrated degree on the other hand. Now, let the mode of death be what it may, it is certain the great danger from anæsthetics consists in the abolition or suspension of nervous function. And in using a remedy which puts consciousness and muscular power in abeyance, we are always putting our patients in serious danger; and, therefore, we are morally bound to use all possible care. Taking this proposition for granted, then, it seems clear that any mode of using so potent an agent, which is manifestly faulty, should be abandoned. And that the method under consideration is faulty in a very great degree seems clear enough. For, if when a patient is under the anæsthetic influence to that degree that consciousness is suspended, and with it all power of the voluntary muscles, it can not require much more of that influence, in addition, to stop the automatic muscular movements also. And hence the great risk of suddenly overpowering the nervous system by even the smallest additional quantity of the agent, such as may be inadvertently given by lowering the cloth a fraction of an inch closer to the mouth and nose. Believing, then, that by the method referred to, more than any other I am acquainted with, the quantity of vapor being inhaled is liable to very dangerously sudden fluctuations, I am determined never again to so use it myself, or allow it in any case where I am responsible. There are those who may reply to all this, that we know little as to the way in which chloroform kills; that it is liable to prove fatal, no matter how administered; and, therefore, it matters little in what particular way it is given. Such a reply, however, would indicate a very superficial consideration of so important a subject, and if implying indifference, would, of course, be highly censurable. Indeed, the doctrine that seems to underlie practice in this particular, is alike irrational and monstrous, that because the subject is obscure and difficult, we are justified in exposing our patients to certain risks without making any effort to diminish them. Assuredly, it is our solemn duty to eliminate any source of danger we can control; and I think I have pointed out one such.

While condemning the method of giving chloroform by dropping it on a cloth held before the face, I do not pretend to say that it may be administered in any other way with complete safety. Neither am I prepared to claim superiority for any one form of inhaler, or method of administration, over all others. However, I have my preference, and it is for Skinner's inhaler—that preference resting partly on theoretical grounds, and partly on experience with it. This apparatus, consisting of a light piece of flannel stretched over a wire frame, in a kind of bell-tent shape, possesses all the simplicity of the towel or handkerchief, but does not allow of the accidental asphyxiation or sudden overpowering of the system by an overdose, as is liable to happen by the other method. Being made of a single thickness of thin flannel (domett), it can not contain a large amount of chloroform at one time; and the wire frame precludes the possibility of its being held very close to the nose and mouth. Indeed, an objection to it is that it wastes chloroform, because of the free access of air and free escape of the chloroform vapor. But this objection is a trivial one when risk to human life is considered, on the other hand.

In criticising the mode of administering anæsthetics by holding a cloth before the face, I do not wish to be understood as saying that mode is, necessarily, more dangerous than others; for with due care on the part of the administrator, all the essential requisites of safety, as we understand them, may be secured. But therein lies its chief defect, that it requires the most watchful and constant care to guard against the risk I have mentioned. Neither do I intend to apply any of these remarks to either of the recent unfortunate cases in this city, for I really do n't know anything about the way in which the chloroform was given in them.

I am, etc.,

THOS. H. KEARNEY.

CINCINNATI, *July* 16, 1874.

Dr. Z. Collins McElroy on Conditions of Organic Life.

Mr. Editor:—The gentleman above named has, for a series of years, assumed the role of censor to the faith and practice of medical men the world over. The whole profession, himself apparently alone excepted, are accused of giving "medicines blindly;" they have endeavored "to harmonize the exact knowledge of its several ministerial (!) branches with the terms and ideals of tradition," whatever this may mean; and they are gravely told that they may be learned in other things than their special callings—"but not in a science of life, for such a science has never been constructed by either regulars or irregulars." Now a man who writes in this way, writes himself down an arrogant egotist—one who thinks that sneers and the assumption of an almost exclusive possession of the truth will gain him believers, and an acknowledgment of his transcendent merits. Perhaps the best way to treat such pretenders is with silence,—a way which so far has not been entirely successful in awakening his mind to the possibility that, after all, he may be deeper in the mire of error than the hosts of thinkers he affects to contemn. As Dr. Z. Collins McElroy is evidently a monomaniac on the dynamics of organic life, it would be a fruitless undertaking to attempt to convince him that his philosophy is not only shallow, but erroneous; and therefore I ask that I may not be supposed to be aiming at such a result, but rather to disarm the impressions his oracular dictums may possibly produce upon some of the junior members of the profession, whose respect for their vocation, and for the teachings of many wise and venerable heads, may possibly have thereby received a violent shock, and serve to turn them from the safe paths of experimental research, to the notion that they too are born to a mission, to wit: to instruct the world that they are able, out of their own wise cognitions, to teach mankind something new; but which has been taught a half dozen times before, and then forgotten as useless.

And to this end let us examine very briefly, *secundum artem*, Dr. Z. Collins McElroy's true science of life. His physiology of life, stripped of useless verbiage, is stated in three axioms:

1. That the human body is composed of definite inorganic materials in definite proportions—"at all habitable points of the earth's surface." Wonder how it is at the uninhabitable points!

2. It has a definite temperature.

3. Function is always associated with definite molecular structure.

Now all this is neither new, profound, nor thorough. Every school child instructed in the merest elements of physiology knows that much.

He then supplements these by three more—two of them being simply the same statements inverted. The third is, definite velocities of changes in the materials of the structures. Such, says Dr. Z. Collins McElroy, are the broad conditions of natural or healthy structural life. The superficies of this statement may be somewhat extended, but it is extremely thin; so thin that it may be seen through at a glance. It explains nothing. It does not tell us the how and the why of things; how bile is made by the liver, and why the action of the heart is rhythmical; and above all, why matter arranges itself in the most admirable manner as an adaptation of means to ends—as in constructing a valve of the heart. These are some of the deep problems which naturalists are now trying to solve, but about which Dr. Z. Collins McElroy is dumb. Simply to say that function is always associated with a definite molecular structure, is simply to say what every one has known since the time of Adam. The wing of the fly on my hand has a definite molecular structure, and does not every child know that it is associated with its natural function.

Dr. Z. Collins McElroy, in his verbose, oracular way, says, "There is not now, never has been, and never can be such a thing as 'disease in the human body;'" and he handles the term "disease," as well as many others equally as familiar to the profession, in a very gingerly manner. It is always the "so-called disease," "the so-called small-pox," "the so-called vital force;" by which we are given to understand by the so-called Dr. Z. Collins McElroy that the profession do not know what they are talking about.

Our oracle proves that there is no such thing as a "so-called disease," thus: Pathological or unhealthy life has its conditions of structure as follows:

1. Motions of materials above or below natural velocities.
2. Changing molecular arrangement.
3. Changed molecular arrangement.
4. Lost molecular arrangement.

Now, the reader who can not see from this that there is no such thing as disease must belong to the genus *anser.* He furthermore says on this topic, "that the concept nearly universally held, alike by professions and people, is that disease is a special entity or identity, a something added to, and not natural to, or foreign to the body, which has gained access to its interior, and is there running and rioting among its organs and structures, and deranging its functions." In the present, past, and future tenses, Dr. Z. Collins McElroy declares that there can not be such a thing. So all who have thought, or do think, or may think that there is such a thing as trichinæ spiralis, which has gained access to the interior of the body, and is there running and rioting among its organs and structures, and deranging its functions, must never, in the name of all the tenses, think so again.

But let us look at another sentence in which our oracle seems to have concentrated all his divine and verbose afflatus. "To be, if possible, still more explicit on these points, let me here reiterate that nothing more, nothing less, or different, can be done to a human body, or for that matter to any living thing, well or sick, alive or dead, than to accelerate, or retard, or modify motion of material comprising structure." Parenthetically, allow me also oracularly to proclaim, that nothing more, less, or different can be done to any substance, either in a liquid, gaseous, or solid form, than to accelerate, or retard, or modify motion of material, comprising body or structure. Is not my declaration quite as true as his? But in declaring it, what do I explain? Absolutely nothing; just as Dr. Z. Collins McElroy's declaration explains nothing. The only thing that is done in either case is to give expression to one of the phenomenal effects of certain causes. Heat, light, electricity, love, anger, joy, life, disease, medicines, chemical affinity, etc., etc., are all causes of a change in molecular velocities and arrangements, but he who thinks that this altered velocity or arrangement expresses *all* that there is in such causes is—well, not moon-struck, but velocity-struck. J.

Albuminuria from Cold Bathing.—Dr. George Johnson (*British Medical Journal*) details four cases in which prolonged bathing in cold water was followed by temporary albuminuria. Three of the cases were healthy young men, from twenty-two to twenty-five years of age, and one a boy of sixteen. In one of the young men there was, almost daily, presence in the urine of albumen, for about three weeks. The boy had bathed daily in the sea for a month, remaining in the water from a half to three-quarters of an hour. It was more than three months after ceasing the baths that the urine ceased to be albuminous.—*Detroit Review.*

Hospital Reports.

A CASE OF FRACTURE OF THE BASE OF THE SKULL, COMPLICATED WITH TETANUS, BROUGHT TO THE CINCINNATI HOSPITAL—SERVICE OF DR. B. F. MILLER.

Reported by PHILIP ZENNER, Resident Physician.

Constantine K., æt. 45. Admitted to the hospital May 15, 1873. Yesterday afternoon, patient fell down a flight of stairs, falling upon the left side of face and left shoulder, and in trying to catch hold of something, injured his right thumb.

Condition on admission: A man of medium size and fine muscular development. Tongue is heavily coated, and appetite is poor; pulse 84.

There is ecchymosis of left eyelids, and some swelling in the temporal region of that side.

Examination reveals a fracture across the body of the scapula a little below its spine.

There is also a compound dislocation of the phalangeal articulation of right thumb, the articulating surface of first phalanx protruding forward through the wound.

The dislocation was reduced, and splints applied to thumb. The shoulder was kept quiet by proper bandages, and cold applications ordered to thumb and shoulder.

There was a slight headache, and six leeches were applied to left temporal region.

23d. Patient has been getting along very well up to this time, all his trouble being referred to his thumb and shoulder; there has been some sloughing of the integument around the injury of the thumb, and also more or less pain in shoulder. Ecchymosis of eyelids still present, though fading away; and the swelling in left temporal region still the same. He has suffered with a slight headache at times.

When seen on the evening of the present date find him not able to open his mouth more than two-thirds of an inch, and scarcely able to swallow, the effort causing a kind of choking. There is some rigidity of the masseters. There is also some rigidity of muscles in back of neck, so that he can only very slightly bend his head forward on the breast. He has some frontal headache, and an occasional sharp pain from left ear to left temporal region. Pulse 100.

He now states that he has felt some stiffness in his jaws for a day or two; that it was more marked this morning, so that he had some difficulty in eating, and has been getting worse since.

Ordered hydrarg. chlor. mite. grs. ij., opii gr. j. every three hours. Also, that his groins should be rubbed freely with unguent. hydrarg. three times during the night.

24th. Slept about three hours last night; suffered with no pain, except that in shoulder; was able to swallow three powders during the night.

The pain, shooting from left ear to temporal region, occurs quite frequent. This morning he has had some slight spasms of opisthotonic character, only instantaneous in duration; is not able to swallow anything; can not separate the jaws farther than one-third of an inch; angles of mouth are drawn slightly outward and downward, the left side more than the right; head drawn slightly backward; more rigidity of muscles of posterior cervical region; pulse 120; temp. 100½°. Ordered the unguent. hydrarg. to be rubbed in every hour.

P. M. Pulse 148; temp. 100½°. Has not been able to swallow anything to-day, and is getting very weak. The spasms described above have been repeated very frequently during the day. He has been unable to sleep any during the day; has been feeling exceedingly uncomfortable, and face is assuming a very anxious expression.

25th. Slept none during the night. According to the account of the attendant, he had more marked opisthotonic spasms during the night. There was a constant tremulousness of arms and hands during the last few hours of life. He remained conscious until death.

Died at 7:45 A. M.

Post-mortem Examination.—On removing the scalp, the muscles external to the skull were found very much infiltrated with blood.

On removing calvarium, blood was found extravasated between the dura-mater and bone on the left side, corresponding to the squamous portion of the temporal bone, and dipping into the anterior part of the middle fossa.

A fracture was found in the squamous portion of the left temporal bone, which extended in two directions—one line running just anterior to the petrous portion of the temporal bone as far as the foramen rotundum; the other crossing the anterior part of the middle fossa, so as to leave a piece of bone between them detached. The membranes on the convexity of the brain were clouded, and the vessels engorged with blood.

The sinuses at the base of the brain were filled with blood, as were also the vessels of the choroid plexus.

The scapula was found to be fractured just below its spine. The fracture extended across the bone, and separated the upper and lower fragments entirely. There was also a fracture across the base of the acromion process.

A CASE OF MALIGNANT DISEASE OF THE STOMACH—SERVICE OF DR. WM. CARSON.

Reported by PHILIP ZENNER, Resident Physician.

Richard M., æt. 42. Admitted to the hospital, October 18, 1873.

The family history is good; there is no account of strumous or malignant disease in it. His health was generally good until attacked with present sickness.

Between eight months and a year ago, having had a feeling of weight and gnawing pain in the stomach a few days previously, he vomited a large quantity of bright red blood. Soon after this he vomited blood again, and has done so a number of times since. He has also occasionally observed blood in his stools. Since the first attack mentioned above, he has been suffering more or less with gastric disturbances, has been vomiting his food either immediately or some time after eating, and having more or less constantly a gnawing pain in the stomach, and sharp cutting pains in it after eating anything. He often has a sensation as though the food were arrested in the upper part of the throat, or near the stomach, and to these localities refers more pain than elsewhere. For several months has been suffering with general pains over body, more on the left side; also, there has been a general hyperæsthesia of the surface. During same time has been troubled with night sweats and insomnia. He has been emaciating rapidly since sick.

Condition on admission: He is very much emaciated, and the surface is quite pale, and he presents a general cachectic appearance; the tongue is dry in center and tip, and coated on its sides; bowels are constipated; pulse 120; temperature 100°. There is marked hyperæsthesia of the surface everywhere over the chest and abdomen; but there is more marked tenderness in epigastrium and along the margin of the ribs. He suffers occasionally with shooting pains in the abdomen. In the epigastric region on the left side, there is some dullness on percussion and greater resistance than usual. A bruit is heard along the line of the aorta as far down as the umbilicus, and the aortic pulsation is more marked than usual.

Nothing abnormal found on physical examination of chest.

Ordered tr. opii gtt. v., spirits frumenti ʒj. every three hours. Also, a fluid diet—milk, beef-essence, etc.

20th. Vomited a little blood yesterday morning, not vomited since. Had a passage from bowels to-day, semi-consistent, and of a reddish-brown color. There is some puffiness of the side of the face on which he lies; the hands also are swollen. Urine, reaction acid. sp. gr. 1017; does not contain any albumen.

21st. Free from vomiting and pain yesterday; less tenderness in epigastric region; still epigastric pulsation; same hyperæsthesia of surface; tongue is dry and glazed. His strength is fast failing him.

22d. Died this morning.

Post-mortem Examination.—On opening the abdominal cavity, there was found near the cardiac extremity of the stomach an agglutinated mass, which, when removed, proved to be the thickened stomach with the left edge of the liver and the head of the pancreas attached, the adhesions resulting from circumscribed peritoneal inflammation. The pancreas and liver were healthy. The walls of the stomach were found to be thickened throughout, in some parts being half an inch in thickness. Its mucous membrane was everywhere thickened, and on its surface were numerous superficial erosions, with here and there deeper ulcerations, eating nearly to the serous coat of the stomach. The ulceration was found alike along the greater and lesser curvature.

No further examination was allowed.

IN MEMORIAM.

An Appeal to the Medical Profession throughout the World.—It is contemplated to erect a memorial statue in honor of Ephraim McDowell, M. D., of Kentucky, the *founder of ovariotomy.* The idea having originated in Danville, where the first operation was performed, was adopted by the Boyle County Medical Society, approved by the Kentucky State Medical Society, and earnestly indorsed by the American Medical Association at its last meeting in Detroit.

Ovariotomy has outlived all opposition, and through the record of its success, by common consent, attained a position in legitimate surgery. Nations formerly arrayed against it are now claiming for themselves the honor of priority. This honor belongs to America.

In the origination and development of new ideas, the pioneer has often to suffer odium and abuse, and rarely lives to enjoy the fruition of a great discovery. This was peculiarly the case with McDowell. A modest, unassuming man of large intellect, rare judgment, strong convictions of duty, and possessing a proper ambition to advance the science of his profession and meet the claims of humanity, he accomplished an act in 1809, in the western wilds of Kentucky, which was not only discredited, but denounced by the whole medical world! With a consciousness of right, unsupported and alone, and in defiance of professional obloquy, he performed operation after operation with astonishing success, and snatched from the grave the victims of a disease until then acknowledged to be incurable! Standing firm, encouraged by results, this undaunted surgeon never faltered, although he had not as yet the prestige of a reputation nor the approving counsel of a single noted surgeon. All honor, then, to Dr. Ephraim McDowell, of Kentucky!

Now that ovariotomy has been justly established throughout the world as one of the greatest triumphs in surgery, it is eminently proper to inaugurate a suitable memorial expression of the high appreciation of his character, of the world-wide benefits of his discovery, and of a due acknowledgment of the gratitude of every nation —[*Extract from circular signed by Jno. D. Jackson, M. D., and many others, in Richmond and Louisville Med. Journal.*

Editorial.

The ways some men take to acquire a lucrative professional practice are almost past finding out. Occasionally a new method of operating, in order to bring about the desired result, comes under our observation, and we make a note. Dr. A believes in the good old plan of sticking close to the office, promptly answering every call that comes to his door, taking as many journals as he can profitably read, and, as his funds will allow, buys a new book, and by daily study he surely lays up capital for future use. Mayhap his taste inclines him to undertake some professional investigations, which, at their completion, gives him an enviable standing among his fellows; and while patiently waiting for calls, he each day adds new luster to his name and clothes. Months and years roll by, but being gifted with the grace of perseverance, he finds that just as his hair begins to turn gray, or his pate assumes a shining, aye, heavenly appearance—for there is neither *dying* nor *parting* there—business comes in, his services are in demand, and he reaps the reward of an honest professional life. Dr. E says A is a good fellow, but entirely too slow a coach for the latter half of the nineteenth century, never will amount to much, no snap about him; that he (E) will take a shorter road to fame and riches. A plan is devised. He will take the first opportunity that presents of getting into a quarrel with his professional brethren—gets them all down on him; then at every opportunity tells his side of the story to his lay acquaintances, especially the male and female gossips; gets attacked in the newspapers. During all this time he takes every opportunity to say: "See how those fellows, being envious, persecute me; are doing their best to drive me to the wall. Was there ever a truer martyr than I." Meanwhile saying to himself: "Has not the blood of the martyrs been the seed of the church? I am sowing the seed, and in due time will reap a bountiful crop of—greenbacks."

Sure enough, being gifted with a large amount of shrewdness, the desired success was attained. In the course of time he rides in a carriage behind a span of horses and a liveried driver, muttering to himself as he is driving past A's office, "What a stupid fellow he is. Big Ingin me!"

Dr. T has some ways that are peculiarly his own, with as much right and title to them as if they were covered by a patent-right. We will note one or two: Having located in the West End, he soon connects himself with a prominent church in his neighborhood, and attends regularly all its services, including the Sabbath-school, where he modestly takes charge of a class. By and by he becomes somewhat irregular in his attendance, which he casually remarks to his pastor and official brethren is owing to his increase of business. In due course of time, according to the custom of the church, a new pastor comes to the congregation. On the day of his inaugural sermon, Dr. T hands him the following note to be read from the pulpit: "With great regret we announce that Dr. T is obliged to give up his class in the Sabbath-school on account of increasing professional engagements." The day being fine, the audience was large, and Dr. T advertised. The doctor being fond of music, occasionally finds time between calls to attend a concert, and as he does not believe in the total neglect of the æsthetic part of his being, takes the risk of losing a call. On one such occasion, not many years ago, having an eligible seat, he saw not very far distant Mrs. F, to whom he had been introduced a short time before. During the intermission the doctor passed over to where Mrs. F was standing, was recognized, and the compliments of the evening were given. The doctor instinctively inquired after the health of the lady, and was informed that she had lately been suffering with neuralgia. Our doctor, out of the goodness of his heart, at once said, "Madame, you should not permit yourself to suffer from so painful a malady." She replied that her family physician generally promptly relieved her by giving her some bromide of potash, but on this occasion she had neglected to send for him, as she thought it would soon pass away without her having to take any medicine. To which the doctor said: "Why Mrs. F, I am surprised that your family physician gives you bromide of potash for neuralgia. I hardly ever use it, and never give it to ladies; it makes them barren. If you will allow me, I fortunately happen to have a little instrument with me, which, if you will have the goodness to slip the sleeve of your dress up a little, I will use in giving you a hypodermic injection that will produce instant relief. I always use it in preference to every other remedy; it is perfectly wonderful in its action." Mrs. F excused herself to the doctor, suggesting that when his services were needed she would send for him. The call-bell rang; up went the curtain, and the doctor retired in tolerably good order after so great a defeat. Enterprising young men do get tripped up sometimes.

Dr. K habitually carries a supply of candies, small dolls, etc., for distribution among the youthful members of the rising generation, and never fails to stop and talk with the mothers, and compliment them about the precocity of their offspring. Great care is taken to cultivate the acquaintance of the children whose parents he does not know; watches for an opportunity to meet them together; of course, the child is spoken to. "Ah, ah, this is your mother. Mrs. C, this is a remarkable child; have frequently observed her actions and conversation; is not like other children; is very nervous; has a very susceptible brain organization; she needs to be watched over very closely. Beg your pardon, madame, in taking so great a liberty as to call your attention to your little girl in this way, but really I could not let the opportunity pass. Good day." The lady ponders over the matter, and says to herself: "Dr. K is a very thoughtful gentleman, very kind-hearted. Our doctor is getting up in years, and does not like to go out at night, besides he lives so far down town; really the first time any of the children are sick I will send for Dr. K." Another innocent way the doctor has, is, when he is called to a case, after the examination, to rub one hand with the other, look very serious, take some member of the family to one side, and say with all the gravity he can command that the case is a very bad one, that it is exceedingly fortunate that he was sent for in the nick of time—further delay would have rendered the case a hopeless one; that as it is, with attentive watching, he would be able to bring the patient through; and leaves a prescription which acts like magic. The patient is saved from a long spell of sickness; the doctor is duly credited, and adds to his business daily.

Dr. Q cultivates the various orders of secret societies. In due course of time is elected G. C. D. L. of the Grand Lodge of the A. O. G., which is duly published in the local columns of the daily press. To those who have not been initiated, we will state for their edification that the above symbols serve to designate the doctor as Grand Custodian of Dirty Linen in the grand lodge of the Ancient Order of Grumblers. Just what special means the doctor employs to induce the fraternity of grumblers to send for him whenever they may be troubled with either pains, aches, or a burning sensation, deponent saith not. As it is one of the ways of the doctor to keep such things dark, success, however, seems to have been attained, as the doctor sits in a new buggy and drives a pair of Dolly Varden colored horses.

Dr. B lives in a village, and as his time is not wholly occupied in a professional way, to make the best possible use of his hours, on the Sabbath he preaches to various congregations in his neighborhood, who happen to be without a pastor, not neglecting to look after the Sabbath-school in that vicinity. And being a firm believer in the doctrine of multiplying and replenishing the earth, he indulges in the delightful recreation of keeping a stallion whose pedigree is as long as his mane and tail combined. Notwithstanding the doctor's various pursuits, he finds time to write learned articles for the different medical journals. Such a man could not live unnoticed in the world. His great versatility of talent must be put to other uses. So, in due time, his services are sought by a reputable medical college, and he is duly installed as one of its professors. Just which of his previous occupations had greatest weight with the authorities that be, in securing his services in the college, we have never been able to discover.

Dr. W has wonderful ways of his own, but for reasons that are no doubt good and sufficient, he occasionally changes his location. Of one thing we will just here remark, the doctor is peculiarly fortunate in always being able to transfer, with his household goods and effects, a business of at least three thousand dollars per annum, which, in his new location, it takes him on an average just about three years to increase to a ten thousand dollar a year local business. We wish to privately inform the ordinary doctor that no ordinary genius can accomplish any such gratifying results as those just recorded. But as before stated, Dr. W. is a wonderful man. Why, it took him less than three years to make the circuit of all the Sabbath-schools of one of the largest associations in the whole West, making an address before all but two, and they are still to be heard from. Of course, it is furthest from our thoughts to think that the good doctor made any of those addresses for any other motive than that of doing good to the dear children. As direct evidence that the doctor's mission was from proper motives, we will state that soon after settling in his present place of abode, he made diligent inquiry of those who were supposed to be well informed in such matters, to find just which of the churches he would be most influential in, that he might cast his lot with that people. The doctor has an eye to business.

Not long since, while engaged in the commendable occupation of enlightening the mind of a clerical brother, as to the enormous amount of wickedness that exists in the medical profession, he went so far as to state, as a solemn fact, that at least two-thirds of the medical profession were avowed infidels. The reverend brother thought the assertion a strong one; but who could know better than his informant? Was he not one of the ex-presidents of the State Medical Society, and had he not given a large amount of his valuable time and superior talents to the investigation of the iniquitous practices of the medical profession, and *ex cathedra* pronounced them guilty?

In bold contrast with the great and wicked two-thirds, behold the immaculate purity of the truly good ex-president. Is he not to be commended to the people to whom that pastor ministers, as most worthy of their patronage, and are they not to be warned against the average wicked doctor?

Then there was the presidency of the State Society. It was just one of the ways the doctor employed that enabled him to add his mite toward the polishing of the executive chair. Did he not, in his most winning way, buttonhole the members and tell them in the most solicitous manner how he designed to shortly change his location to one of the larger cities, and what prestige it would give him to float his banner in the breezes of the windy city, as president of the State Medical Society? The gross wickedness and immorality of the two-thirds had not yet been discovered, or surely our truly good doctor would not have desired to preside over them, as the risk of contamination would have been too great.

A new hotel is built in the town where Dr. L resides, and is leased for a term of years by a firm in a neighboring city. The doctor, while looking after the main chance, makes the important discovery that he and Boniface have mutual acquaintances. Letters of introduction are duly placed in the hands of Boniface, to be presented to the doctor. On his next visit to his new home, Boniface seeks the doctor; is received by him with open arms; inquires very particularly after the welfare of his old friends; invites Boniface home with him to dinner; a feast is spread; there is a gushing flow of soul and—ice-water, for the doctor is a temperance man of the strictest sort. His late invention of an instrument of precision, that is to bring medical science up to the very highest notch, is exhibited. The wonderful success the doctor has had in his practice is modestly set forth. The grand hotel is discussed—

a thing of beauty, superior construction, and most affable of landlords.

We would not for the world have any one suppose for one moment that the doctor was after the business of that hotel; it most certainly would not be accepted, even if tendered on a silver dish. Such a thing is not to be thought of—it savors too much of commercial drumming; and our disciple of Esculapius, with a specialty practice worth not less than ten thousand dollars a year, does not propose to stoop to anything so small as to seek the business of a hotel in that manner—the business must seek him.

Many other ways and means have been devised and put in operation, more or less successfully, and may be duly recorded in the future, for the delectation of our readers.

We rejoice that the medical profession hereabouts has thus far escaped hydrophobia. We have a holy horror of the disease, and especially in the virulent form recently assumed in the city of Gotham. Candidly speaking, we do n't believe we could be brought to quietly endure the presence of mad dogs, unless they were securely caged. "You pays your money and takes your choice."

Wanted—A Training-school for Nurses.—Nearly every physician has time and again wished from the bottom of his heart that there was such an institution—a place where he could, at any time, obtain the services of a competent and reliable nurse, knowing that very often he is almost impotent in the treatment of his patient because of an inefficient nurse. There is in this city, as in every large place, a class of persons who call themselves professional nurses, from many of whom physicians are frequently constrained to exclaim, "Good Lord, deliver us!" This is not altogether the fault of the nurses, as there is no possible means for them to receive any other instruction than that gathered from physicians who are attending the patients they are engaged in nursing, no provision being made for giving them any special instruction in the management of the sick-room or cases of emergency. Primarily, the medical profession, and particularly those who are connected with our hospitals, are at fault for not establishing, in connection with those institutions, a training-school for those who wish employment as nurses where there would be given a short course of lectures, with practical bedside instruction.

It is not an uncommon occurrence for a nurse, as soon as the doctor's back is turned, to at once violate his strictest injunctions.

If one of the family remonstrates, they justify themselves by saying, "I can not conscientiously give even a sick person any alcoholic stimulants. Dr. T—— told me that he never saw a case in which he did not think something else would do a great deal better." Or, "Dr. G——, who has a very large practice in this class of cases, told me never to allow the doors and windows to be open for one minute when I would be nursing a patient with roseola; that the rash would be sure to strike in and kill the patient." May be the doctor at his next visit is told of what the nurse did, and may be he is not; as the family have such implicit confidence in a nurse of such great experience, nothing is said. Others, again, are seemingly anxious to do just what they are told—nothing more, and hardly that; having not the most remote idea of being the author of any of the many little attentions that are so agreeable to the sick, and which they should receive from the nurse. There is every year a rapidly increasing demand for a class of nurses who are educated in the art of cooking delicacies for the sick, and in habits of observation, order, and discipline, cleanliness, and truthfulness.

In the training-school there should be kept a register of nurses who have received suitable instruction and are out of employment. Further, such an institution would be the means of furnishing respectable and remunerative employment to a large number of persons who would be glad if some such way were opened up to them of gaining a livelihood.

There is probably no one article of modern discovery that is brought into more constant and universal use than India-rubber and its various preparations. Sometimes inventive genius makes a bad use of its admirable properties. One of those uses is outrageous in the extreme—that is, when converted into diapers for infants. Mothers and nurses have a great admiration for them, and almost grow enthusiastic when they relate its virtues in protecting the child's clothes from becoming wet or soiled. They will tell you with what safety they can leave home with the child and be gone four, five, or six hours, and not feel constantly uneasy on account of the baby's condition; that there is not a particle of danger of its being soiled through. What heartlessness—we are inclined to say criminality!

Is it any wonder that the mortality of infants is so great when we consider some of the treatment they receive at the hands of their natural protectors? What more effective cause of the production of disease among infants can be conceived of, than that of keeping them wrapped up for hours in their own excretions, compelled to inhale the effluvia that arises around them. The skin becomes excoriated by long contact with the urine, and, in that condition, readily absorbs the poison with which it is surrounded; in fact, at least one-third of the child's body is completely immersed in a miniature vault. And as if that were not a sufficient punishment for the innocents, a rubber sheet is carefully placed over the child's mattress to keep that from becoming soiled, it being impossible for any exhalations to pass through the rubber. With the thermometer marking ninety degrees in the shade, the child's bed is not a very desirable place in which to woo nature's sweet restorer. We advocate the doctrine that cleanliness is next to godliness, and just as firmly believe in keeping the inside of the cup and platter clean as the outside.

Office of the Supervising Surgeon, U. S. Marine Hospital Service, Treasury Department, August, 1874.—The supervising surgeon of the United States Marine Hospital Service having been designated by joint resolution of the Forty-third Congress, approved March 25, 1874, in connection with a medical officer of the army, "to confer with the health authorities and resident physicians of such towns (as were visited by the cholera epidemic of 1873), and to collect, so far as possible, all facts of importance with regard to such "epidemic," for the purpose of making a report of the same to the President of the United States to be submitted to Congress, I have the honor respectfully to solicit a detail of the facts which came under your observation, concerning the propagation and spread of the disease during that year.

The following memorandum embraces, substantially, the points upon which information is desired:

1. Name, sex, and age of patient.
2. Residence of patient—town, street, and number.
3. Day and hour of attack.
4. Premonitory symptoms; their nature and duration.
5. Progress of the disease:
    a. Day and hour of beginning of rice-water discharges.
    b. Day and hour of beginning of cramps.
    c. Day and hour of beginning of collapse.
    d. Period and extent of suspension of renal function.

   e. Nature of treatment and result.
   f. Day and hour when convalescence began.
   g. Day and hour when death occurred.
   h. Post-mortem appearances in detail.
6. Story of house occupied, and height of floor from ground.
7. Sanitary condition of house and inclosure:
   i. As to cleanliness of rooms—clean, neglected, filthy.
   k. As to ventilation and light—good, defective, bad.
   l. As to drainage of house—good, obstructed, absent.
   m. As to drainage of ground—good, obstructed, absent.
   n. As to location and condition of privies or water-closets, connection with street-sewer, mode of flushing, of ventilation of soil-pipe, disinfection, etc.
   o. As to surface, water, garbage, or filth about the premises.
8. Source and quality of water-supply. If from a well or cistern, proximity of privy, sewer, or drain thereto, and chance of pollution.
9. General topography of localities in a given town where cholera prevailed.
10. Character of soil.
11. Character of drainage.
12. Occupation and habits of patient, and whether a resident of house where attacked for two weeks or over.
13. The facts in any case where the patient was attacked within two weeks after removing from an infected district into one previously free from the disease, specifying the respective districts and character of exposure.
14. The sequence of cases where more than one was attended, with their relations to each other, and to the cases of other physicians, with names of such physicians.
15. The means and agents used by the physician, by the family, and by the municipal authorities to prevent the spread of the disease, and the result of such preventive measures.
16. Public measures taken to prevent the introduction of the disease into your community, with the result.
17. Temperature, rain-fall, and prevailing winds for as long a period as practicable prior to appearance of cholera, and also during its continuance.
18. Dates of first and last cases of cholera in the locality in 1873—total number of cases and mortality.

19. Connection, if any, between the first cases in 1873 and the localities of the disease in the immediately preceding epidemic.
20. Names of cities, towns, and villages known to you where cholera occurred during 1873, with any facts relating to the introduction of the disease to such, and the address of some respectable practitioner residing in each of the places named.

Contributions to this investigation, by answers to the foregoing, or to so much thereof as is practicable, will be fully acknowledged in the official report, the value of which, it is hardly necessary to say, will largely depend upon the co-operation of the profession thus sought.

Copies of any reports or papers which you may have already prepared on the subject, or of those prepared by others and annotated or amended by yourself, will also be of service, and may be forwarded, to be returned if desired.

I am, very respectfully,
JNO. M. WOODWORTH,
Supervising Surgeon.

We hope each of our readers will consider the above circular addressed to himself individually.

The first quarterly meeting of the Alumni Association of the Miami Medical College meets October 1, 1874, at 7:30 o'clock P. M., at the residence of the president, Dr. William B. Davis, No. 310 Elm street.

Papers will be read by Drs. Stanton and Illoway. All the graduates are expected to attend.

Consistency, thou art, etc.—It is with sincere regret that we see our friends of the religious press continue to publish labored editorials on the temperance question, and at the same time advertise stomach-bitters. Our duty in the matter is done.

Married.—July 29, 1874, by Rev. J. R. Gabriel, Dr. J. A. Averdick, of Batesville, Indiana, to Miss Clara J. Estel, of Haymond, Indiana.

Dr. Averdick is a graduate of the class of 1874, Medical College of Ohio.

Reviews and Notices.

A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphilis. By W. H. VAN BUREN, A. M., M. D., and E. L. KEYES, A. M., M. D. New York: D. Appleton & Co., Publishers.

The steady advancement of the science of medicine and surgery necessarily involves a corresponding increase in the number of standard text-books that must be found on the library-shelves of those members of the medical profession who are inclined to keep posted in the latest teachings of the masters.

The work before us is not only called for by the surgeon, but also by the general practitioner. Its arrangement is based upon an anatomical classification of the tissues and organs of which the diseases and deformities form the subjects of description. In Chapter I., the anatomy of the penis and its anomalies are described, and the injuries to which the organ is liable; the operations of circumcision and amputation are minutely given, and also those for phimosis and paraphimosis. A commendable characteristic of the work is that after a description of any particular disease or case, the authors follow it up with minute details of the treatment.

The following chapter contains illustrations and diagrams of catheters, giving the correct and faulty curves, and quite a number of illustrations of sections of the penis, from Cruveilhier. Our authors state that "no amount of instruction, no volumes of directions, can teach the student how to pass the sound." He must learn by doing it, first upon the dead, then upon the living body. Notwithstanding which our authors give the most careful suggestions as to the plan to be pursued; such as placing the patient in a proper position, the direction of the sound, etc.—cautioning against using any instrument that is not smooth, polished, and well oiled. Warmed oil, thrown into the canal with a syringe, greatly facilitates the passage of an instrument.

The chapter on gonorrhea is very complete. On the subject of treatment, what is known as the abortive treatment is condemned.

Insist on carrying out the hygienic conditions under which the patient must live, without permitting the slightest variation; if he can be persuaded to go to bed for a few days, so much the better. The first, and perhaps the only, medicine needed internally is an alkali. The citrate of potash is perhaps the best; dose from grs. x. to xl., according to the acidity of the urine. The wrappings around the penis should be as light as possible. Injections are of doubtful advantage in the first or increasing stage. The chapters on strictures are very full, and are finely illustrated; also, those on diseases of the prostate gland and of the bladder. Many of the plates are original.

Part II. is devoted to chancroid and syphilis, the authors accepting the dual theory, entering fully into a description of the two varieties of chancres and chancroid, and their diagnosis and treatment. Treatment by syphilization is condemned; of chancroids by mercury, harm invariably results; is a local affection—not so with true chancre.

Chapter VIII. is written by Henry D. Noyes, M. D., and treats of syphilis of the eye; and Chapter IX., on syphilis of the ear, is by Dr. Roosa.

This is one of the most complete works on the genito-urinary diseases that has ever been offered to the medical profession, and at once will assume the place of a standard text-book.

A Conspectus of the Medical Sciences, comprising Manuals of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine, Surgery, and Obstetrics. For the use of Students. By HENRY HARTSHORNE, A. M., M. D. Second edition, enlarged and revised, with four hundred and seventy-seven illustrations. Philadelphia: Henry C. Lea, Publisher.

This book belongs to a class that we think it would be better for students had they never been published. They give in a very terse manner many of the essential points in the different departments of medicine, but it is absolutely impossible to embody in one book the whole of medicine that a student should read as his text-book. Yet with one of these books in his hands he dislikes to purchase another. After carefully looking through this conspectus, we are constrained to say that it is the most complete work, especially in its illustrations, of its kind that we have seen.

Inflammation of the Lungs, Tuberculosis, and Consumption. By Dr. LUDWIG BUHL, Professor of Pathological Anatomy and General

Pathology in the University of Munich. Translated from the second German edition, by MATTHEW D. MANN, M. D., and SAMUEL B. ST. JOHN, M. D. New York: G. P. Putnam's Sons, Publishers.

This little work is written in the form of twelve lectures, on a subject in which every practitioner must take a deep interest. Niemeyer's theories concerning the origin of phthisis and tuberculosis awakened an interest in this subject that had generally been regarded as settled. Investigation and observations were at once made the order of the day, and among the workers in that direction we find the author of this monograph one of the most prominent. Prof. Buhl is the author of the infection theory of tuberculosis, which was the groundwork and foundation of Niemeyer's structure; also, we find that Prof. Buhl is indorsed and supported in his views by Rindfleisch. On the subject of catarrhal pneumonia, he takes the ground that that which is called catarrhal pneumonia is no pneumonia, but only a capillary bronchitis—a bronchiolitis in which the lung shares in the way of collateral œdema, atelectasis, local emphysema, and engorgement in consequence of the secretion, being transferred from the bronchi to the individual alveolar lobuli. The disease in its severity may cause death, with the symptoms of dyspnœa and cyanosis. He further states that cheesy degeneration in acute catarrhal pneumonia is not "tolerably common" (Niemeyer), but, on the contrary, the rarest of all appearances, giving at length his reasons for his belief. On the subject of croupous pneumonia, he expresses himself with emphasis against the idea that this disease ever forms the preliminary stage of cheesy pneumonia, and that all conditions for cheesy degeneration are wanting in croupous pneumonia. Speaking of desquamative pneumonia, he proceeds to show that its present pathological significance as catarrhal pneumonia is not correct, and seeks to bring forward a new conception, to establish a genuine desquamative pneumonia as a distinct disease, having several grades, and charges it with being the preliminary stage and companion of significant dangerous processes, lung phthisis, and tuberculosis, by bringing it into genetic connection with these conditions, which are already more or less understood.

On the subject of tuberculosis, the author maintains that miliary tuberculosis is a disease due to specific absorption and infection; and further, that tuberculosis can be conveyed from one human being to another, and that tuberculosis, as a rule, does not co-exist with any other disease derived from infection.

The work consists of but one hundred and sixty-four pages, is the latest scientific treatise on the subject, is tersely written and well translated, and should be in the hands of every man who wishes to keep abreast of the times.

For sale by Geo. E. Stevens & Co., Cincinnati. Price, $1.75.

Materia Medica. For the use of Students. By JOHN B. BIDDLE, M. D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, etc. Sixth edition, revised and enlarged, with illustrations. Philadelphia: Lindsay & Blakiston, Publishers.

A book that has passed through five editions needs no further comment as to its merits. Some of the articles on therapeutics have been entirely rewritten, and others changed to conform to the rapid advance that has taken place in this branch of medical science during the past year. The new method of chemical notation is adopted.

The work, on account of its conciseness, is particularly well adapted to the use of students, and consequently is not so elaborate as a work on this subject should be for reference by the practicing physician.

For sale by Robert Clarke & Co. Price, $4.00

Woman's Education and Woman's Health. Chiefly in reply to "Sex in Education." By GEO. F. COMFORT, A. M., Dean of the College of Fine Arts of Syracuse University, New York, and Mrs. ANNA MANNING COMFORT, M. D. Syracuse: T. W. Dinston & Co., Publishers, 1874.

During the latter part of last year, Dr. Edward H. Clarke, of Boston, issued a little book on "Sex in Education," which was noticed in the LANCET AND OBSERVER at the time, and has attracted a great deal of attention and criticism both from the profession and those engaged in education.

Among the responses which have been called out by Dr. Clarke's book, none have appeared to us to discuss the topics suggested with more candor and completeness than the one before us, the joint production of Prof. Comfort and his accomplished wife.

Prof. Comfort being himself connected with a university that recognizes co-education, he naturally regards the whole discussion from his stand-point; and, if we read Dr. Clarke correctly, here is the only point that we think the work before us does him injustice. If we understand Dr. Clarke, he does not so much object to co-education as to education which makes the same continuous tax upon the girl as the boy. He objects to a girl having the strain of a boy's work placed upon her just as she is passing through her climacteric of puberty.

Prof. Comfort thinks Dr. Clarke's argument, if it be good for anything, proves too much, and would practically abolish all female education. The little book is further a condensed outlook upon the whole physiological argument. In a further section he discusses the causes of ill-health of American women, and very clearly shows that our systems of education in this country have but little connection with the matter; that these causes are very different and easily prevented. He also very earnestly combats Dr. Clarke's views of what he terms the "European way." As Prof. Comfort is himself a German student and traveler, he was fully prepared, both from his own observation as well as from his extended correspondence, to demonstrate the singular extent of fallacy in the statements of Dr. Clarke.

To those interested in this whole subject of female education and health, Prof. Comfort's little book will be very acceptable and suggestive. E. B. S.

Archives of Electrology and Neurology, edited by GEO. M. BEARD, of New York; and *The Chicago Journal of Mental and Nervous Diseases.*

Appearing almost simultaneously and devoted to kindred specialties, they indicate the rapidly growing importance of a knowledge of those fields of study. Both journals are edited with superior ability, and are worthy of a generous support.

Hints in the Obstetric Procedure. Annual Address before the Philadelphia County Medical Society. By WM. B. ATKINSON, M. D., retiring President.

We wish this address could be placed in the hands of every man who attempts to practice the obstetric art. It is replete with good common sense, and practically refutes many of the traditions of the lying-in room.

Fifth Clinical Report of the Rotunda Lying-in Hospital. By GEO. JOHNSTON, M. D., etc.

This is a model in the way of an annual report, giving the condition of the hospital, treatment of patients, causes of death, and post-mortem appearances.

As an illustration of the completeness of the tables, we present the heading of table No. 1: Cases where forceps were used before the os uteri was fully dilated; number; age; number of pregnancy; child; sex; weight; lived; died; hours in labor; causes of interference; early rupture of membranes; prolapse of funis; convulsions; epileptic; degree of dilatation of the os at time of operation (fifths); amount of advance of the head when the forceps were applied; above the brim; in the brim; in the cavity; result to mother; recovered; died; causes of death; peretonitis; convulsions. The report is a creditable one to the master.

Manual of Eye Surgery. By A. J. HOWE, A. M., M. D. Wilstach, Baldwin & Co., Cincinnati, O.

The above manual has lately made its appearance under the mistaken idea that the profession needed a work of this kind, not written by a specialist or for the benefit of specialists. We can not agree with him on this point. A man will generally write best on the subject which he studies most closely. It does not follow that because he wrote an acceptable work on fractures and dislocations, that he can write a manual on eye surgery. We have looked through the book, and will only notice what he says in regard to diseases of the conjunctiva. After a short description of purulent conjunctivitis, he gives his treatment, which consists in the application of nitric acid, of full strength, to the conjunctiva. This is applied with a spatula of wood. It is said to make a "forcible and lasting" impression. Certainly it would make a "lasting" impression, for we fancy the conjunctiva would be so thoroughly cooked with the "pure nitric acid," that it would be unable to perform its functions.

He also extols the extract of pinus canadensis.

In suspected intra-ocular pressure, resulting from purulent conjunctivitis, he has known considerable relief to follow paracentesis of the cornea; but he wisely adds, "the difficulty is in certainly knowing when it is necessary." Why not give the indications for the operations?

He barely mentions nitrate of silver and other astringents in purulent conjunctivitis, and forgets altogether *iced* compresses and atropine. In trachoma, he says that the sulphate of copper and nitrate of silver are used by oculists of the present day. In the next sentence he warns us against the use of caustic applications, lest they produce permanent curving of the tarsus, etc. This is a wise precaution, for, in the sentence following, he gives his treatment of this disease, which is "nitric acid, chemically pure and of full strength." "Oh consistency," etc.

His treatment of ophthalmic neonatorum caps the climax for absurdity and inconsistency. He applies pinus canadensis reduced one-half with water, with a "*stick* made from wood not easily broken." Does he need to *pry* the lids of the helpless little creatures open with a stick, as if he were extracting a molar? With a very slight amount of dexterity he could evert the lids and make applications to the conjunctiva without risk of injuring the cornea with his stick.

He declares "that the daily inspection of the cornea, insisted on by some ophthalmologists, is unnecessary, and frequently harmful." In profound innocence he exclaims, "What would the wise inspector do if he did see the ulcer?" If he had studied the standard works of the day he might have known. He certainly could not get Stellwag, to whom he is indebted for most of his wood-cuts, to indorse his treatment of purulent conjunctivitis, or trachoma or ophthalmic neonatorum.

We have neither space nor inclination to review the book further. It contains nothing new or valuable, and can not be considered a guide, if we compare its treatment of diseases with that of standard works. The wood-cuts are miserably executed.

A Treatise on Food and Dietetics: Physiologically and therapeutically considered. By F. W. PAVY, M. D., F. R. S., etc. Philadelphia: Henry C. Lea, Publisher. For sale by Robert Clarke & Co. Price, $4.00.

The subject treated of in this volume, is one of concern to both those who are sick and in health. The author embodies in his subject the dynamic relations of food, the origin of food, and the power possessed by animals of forming one kind of organic compound out of another, taking up the constituent elements of food, their classification, their chemical relations, mode of digestion and assimilation, giving in detail Dr. Parke's experiments on the elimination of nitrogen.

The various non-nitrogenous alimentary principles and their uses in the animal economy are very fully discussed.

The following extract is from Dr. Letheby's lectures (quoted by Dr. Pavy), on the characteristics of good meat:

"1. It is neither of a pale pink color nor of a deep purple tint: the former is a sign of disease, and the latter indicates that the animal has not been slaughtered, but has died with the blood in it, or has suffered from acute fever.

"2. It has a marbled appearance, from the ramifications of little veins of fat among the muscles.

"3. It should be firm and elastic to the touch, and should scarcely moisten the fingers; bad meat being wet and sodden and flabby, with the fat looking like jelly or wet parchment.

"4. It should have little or no odor, and the odor should not be disagreeable; for diseased meat has a sickly, cadaverous smell, and sometimes a smell of physic. This is very discoverable when the meat is chopped up and drenched with warm water.

"5. It should not shrink or waste much in cooking.

"6. It should not run to water or become very wet on standing for a day or so; but should, on the contrary, be dry upon the surface.

"7. When dried at a temperature of 212° or thereabout, it should not lose more than 70 to 74 per cent. of its weight; whereas, bad meat will often lose as much as 80 per cent.

"To this may be added that there should be no sign of the presence of parasites. The fat, also, should neither be deficient nor excessive."

The different vegetable alimentary substances and their products are described, with their uses, and methods of preparation as articles of food. The author certainly furnishes his readers with a very complete treatise on food and dietetics.

Archives of Ophthalmology and Otology. Vol. IV., No. 1. Wm. Wood & Co., New York.

The first part of Volume IV. of the Archives of Ophthalmology and Otology has just made its appearance. This valuable special journal has been changed from an irregular semi-annual publication to a quarterly. This change will be very acceptable to the profession, and will serve better to keep up the general interest.

The present number contains valuable papers, all of them practical in their character—the results of personal observations and investigations.

A valuable feature of the present number is the review of recent publications on ophthalmology and otology. Short notices of books and monographs on interesting subjects are given in the most impartial manner.

The Archives are published simultaneously in English and German, by Prof. H. Knapp in New York, and Prof. S. Moos in Heidelberg, thus giving the articles an international circulation. To the specialist they are indispensable, and to the general practitioner they will be found very valuable and interesting.

The Archives of Dermatology. A quarterly journal of skin and venereal diseases. L. DUNCAN BULKLEY, M. D., Editor. G. P. Putnam's Sons, Publishers, New York.

Will make its first appearance on the first of the coming October.

Electro-Therapeutics: A condensed manual of medical electricity. By D. F. LINCOLN, M. D. Henry C. Lea, Publisher.

This little work describes the various principles which should govern the use of what is recognized as one of the most efficient therapeutical remedies. The plates are excellent, and an intelligent description of the various electrical machines, with the methods of application, makes the work a valuable one to the general practitioner.

For sale by Robert Clarke & Co. Price, $1.50.

Nomenclature of Diseases. Prepared for the use of the medical officers of the United States Marine Hospital Service, by the Supervising Surgeon, JOHN M. WOODWORTH, M. D.

This is the classification and English-Latin terminology of the provisional nomenclature of the Royal College of Physicians, London. In order to the registration of statistics that are of any real value, it is necessary that there should be a uniform nomenclature of diseases. It is absolutely necessary, for very many other reasons, that will at once recur to the mind of every intelligent practitioner. We can not but hope that the above classification, which is a most excellent one, will be adopted by the whole medical profession in the United States.

Essays on Conservative Medicine and Kindred Topics. By AUSTIN FLINT, M. D. Henry C. Lea, Publisher, Philadelphia.

We intuitively know that a grand feast is prepared for our benefit whenever a work fresh from the pen of that systematic observer, our author, is placed in our hands. This little volume consists of eight essays, most of them being papers the author had prepared and read before various medical societies. They are written in the usual clear style that has served in no slight degree in giving Prof. Flint his extensive reputation as a practitioner, teacher, and writer on medical topics. The first essay is on conservative medicine. In explanation of the subject, he states that "the conservative physician shrinks from employing potential remedies whenever there are good grounds for believing that diseases will pursue a favorable course without active interference. He resorts to therapeutical measures, which must be hurtful, if not useful, only when they are clearly indicated. He appreciates injurious medication, and hence does not run a risk of shortening life by adding dangers of treatment to those of disease." All that society can claim of medicine in any generation is the capabilities of the medical science in that generation. All that society can claim of physicians is that these capabilities shall be understood and judiciously applied. Conservative medicine is a legitimate result of scientific researches in different directions. Conservatism, as applied to therapeutics and hygiene, is next discussed.

The fourth essay is on "Medicine in the Past, the Present, and the Future," followed by an essay on the "Alimentation of Disease." The sixth essay is on "Tolerance of Disease," of which a very full abstract was given in the LANCET AND OBSERVER, February, 1874. The seventh essay takes up the "Agency of the Mind in Etiology, Prophylaxis, and Therapeutics," in which the author makes the following statement: "Among those whose work may be distinguished as *brain-craft*, they who suffer from the mental causes of disease are not the close students, the industrious authors, and the laborious lawyers, clergymen, and physicians, in so large a proportion as men of business, speculators, and politicians. It is not the amount of intellectual work so much as the constant tension from anxiety and suspense, the alternations of undue exultation and despondency occasioned by the so-called caprices of fortune and persistent over-excitement, which constitute morbific agencies of mental origin." Proceeding to state further: "The calamities of life, which, by way of distinction, we may call providential, are far less likely to prove morbific than emotional distubances incident to a disordered imagination, irregularities of life, and unrestricted passions. Both mind and body stand such calamities (providential) much better than those for which the responsibility rests with man rather than with God." The eighth essay discusses the "Divine Design as exemplified in the Natural History of Diseases."

The book consists of 214 pages, and is gotten up in the best style of the publisher's art.

For sale by Robert Clarke & Co. Price, $1.30.

Braithwaite's Retrospect and *The Half-yearly Compendium*, as usual, come to us freighted with the cream of medical literature, skimmed from the journalistic world on both sides of the Atlantic.

Obituary.

Died.—At his residence on East Walnut Hills, August 16, 1874, Dr. Charles Woodward.

Dr. Woodward has been a practitioner of medicine in Cincinnati for forty-eight years. A graduate of the University of Pennsylvania, he was for many years recognized as one of the first physicians in this city.

Rarely do we meet a man so universally beloved by all who knew him, as we know to have been the case with Dr. Woodward.

At a meeting of the medical profession of Cincinnati, August 17, 1874, the following resolutions were adopted:

"WHEREAS, We have learned with profound sorrow of the death of our friend and respected professional brother, Dr. Charles Woodward; therefore,

"*Resolved*, That in the loss of Dr. Woodward a blank is left in our social and professional circle that must for a long time remain unfilled.

"*Resolved*, That we appreciate the irreparable bereavement sustained by his family. An affectionate and genial husband, a kind and indulgent father, governed by true Christian principles in his intercourse with all who came in contract with him.

"*Resolved*, That we hereby tender our heartfelt sympathy to the family of the deceased; that they be furnished a copy of these resolutions, and that the proceedings of this meeting be furnished to the daily papers for publication, and to the medical journals of the city."

THE CINCINNATI

LANCET AND OBSERVER

J. C. CULBERTSON, M. D., Editor.

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Dr Hays

Original Communications.

Art. I.—Pneumonitis, or Pneumonia.

A paper read before the Highland County Medical Society, by ROSS C. RUSS, M. D., Hillsboro, Ohio.

Mr. President and Gentlemen of the Highland Co. Medical Society:

By reason of the appointment by the president as one of your essayists of to-day's meeting, it becomes my duty to read a "disquisition" on some medical subject. I have chosen for that purpose the investigation of that very common, yet very important disease, familiar to every practitioner of medicine as "Pneumonitis, or Pneumonia."

I am aware that there has been some discrepancy of opinion among nosological writers as to the precise tissue or tissues involved in pneumonic inflammation. But the more recent writers confine it to the "blood-vessels, air-cells, and inter-cellular tissue" composing the parenchymatous structure of the lungs.

By inviting your attention to a consideration of so common a disease as that of "pneumonitis," I am aware that I shall create anticipations of the development of something new, either in the pathology or treatment of this disease.

I only wish, however, to present my views and "clinical observation," that I may know how they compare with the experience of my collaborators in the healing art at the present stage of medical science.

As brevity is the beauty of bad composition, I shall forego an elaborate recitation of the many numerous theories and views that have, from time to time, been presented to the profession by different "authorities" on that subject.

Therefore, as the object of my "disquisition" is brevity with "perspicuity," I shall only direct your attention to three varieties, namely: "Lobular, lobar, and double-pneumonia." I shall, likewise, only consider three stagee—that of congestion, hepatization, and suppuration. There will also be only three complications noticed in the development of pneumonic inflammation: "Hepatic, typhoid, and pleuro-pneumonia"—all other complications are held as being incidental.

I invite your attention, in the first place, briefly to the normal "anatomy and histology" of the tissues involved in pneumonic inflammation. The air-cells and broncholes are lined by a very delicate membrane, which is distinguished by its tenuity, and by the absence of mucous follicles, and by a change of the "epithelium from the cylindrical and ciliated to the tessellated variety." And it agrees with the phenomena attendant on acute inflammation of these structures. For example: Inflammation of the bronchial mucous membrane is attended by symptoms characteristic of other mucous structures, while inflammation of the membrane lining the air-cells, as in pneumonia, is accompanied by a deposition of "fibrine," as in inflamed conditions of the common fibrocellular tissue.

The air-cells, then, and broncholes—make up the lobules, and these united by "areolar tissue constitute the normal anatomy of the structure which is involved in pneumonic inflammation."

This is also in accordance with a pathological "law" that inflammation of a structure does not, as a rule, extend to another structure, however proximate, which has important anatomical differences, or differs in function.

It is in the form of "lobular" pneumonia that the disease generally appears in children under five or six years of age, and has been termed by some writers as infantile.

In this form of the affection the disease does not attack the entire lung or lobe of a lung at a time, but merely small isolated sections throughout the lung. There may only be a lobule involved in the morbid action; or there may be many, thus varying the size of the inflamed sections of lung to mere points of inflammation, or it may involve several lobules.

It is this form of the disease that sometimes results in pulmonary "abscess," formed by the small patches of inflammation running through the various stages of diseased action to "suppuration," destroying the parenchyma of the lung involved in the "morbid process."

Also, the "suppurating cavity is surrounded by a plastic wall. thus limiting the abscess," which afterward collapses and cicatrizes, thus leaving the lung contracted; although abscess is not the necessary result of this form of pneumonic inflammation, for many cases pass on to "resolution" and ultimate health, without abscess.

Why is it that this form of pneumonic inflammation is more prevalent in infantile life than in persons of more mature years? It must be from the fact, that the "vital forces" of children are weaker than in adults; thereby rendering the delicate pulmonary tissue more susceptible to this form of inflammation.

While we sometimes meet with abscess in this form of pneumonic inflammation, we should always bear in mind its formation is somewhat different from that form of abscess which occurs in the third variety, or as a result of the inception of "gray hepatization."

I come now to the consideration of the second variety of pneumonic inflammation, or "lobar pneumonia."

There is nothing, that I am aware of, peculiar about this form of the disease, except that it attacks an entire lobe or lung at once, and likewise being one of the "varieties" of pneumonic inflammation most generally peculiar to adult life.

I will direct your attention now to the third division, or variety—double-pneumonia. We have but to consider the inflammation of "both lungs," or the entire respiratory "apparatus of man." In this form of pneumonic inflammation, it not unfrequently puts on great gravity, the danger being augmented; consequently, the "prognosis" is rendered more "dubious" than in either of the other varieties.

While upon this point I must say that this form of pneumonic inflammation, according to clinical experience, seldom passes beyond the stage of "hepatization," the patient not unfrequently succumbing before the stage of active congestion is fairly passed.

It appears, by repeated examinations of pneumonic cases, that the inferior lobe of the right lung is attacked more frequently than the right superior lobe, and the superior more frequently than the middle. In regard to the left lung, the inferior lobe is oftener affected by inflammation than the left superior lobe, and in double-pneumonia they are generally affected simultaneously.

In the investigation of the first, or congestive stage of this disease, it is proper to observe that the inflammation is preceded here, as elsewhere, by "irritation" of the parts, with "fluxion" of blood to the parts, giving rise to "engorgement" of the capillary "plexus" of the blood-vessels of the lungs.

Hence it has been claimed by many pathological writers that this forms one stage of this disease. But all cases of irritation and congestion of the lungs do not "eventuate" into inflammation. It forms not "the proper congestive" inflammation of pneumonia; but remains as congestion, and demands to be treated as such.

There is, then, in the true congestion of pneumonic inflammation, not only local "hyperæmia" of the capillaries of the lungs, infiltrating the inter-cellular tissue and air-cells with the "liquor sanguinis," thus evolving that well-understood and very truly "diagnostic symptom," the "crepitant rale;" although, according to my observation, this physical sign in children under three years of age with pneumonic inflammation is somewhat more difficult to detect, owing to the small size of the "air-vesicles" at this age.

The true cause of this physical sign is unquestionably due to the filling of the air-cells with fluid, at the same time infiltrating the cellular tissue, and thus compressing the air-cells, rendering the ingress of air difficult, labored, and rattling, thereby producing the "crepitant rale."

The rational symptoms are characterized by a chill, pain in the chest, hurried respiration, a hot, dry skin, a full, firm, frequent pulse; but not invariably so, for sometimes the pulse is not characterized by strength.

The tongue is generally coated with a white or yellowish-white fur, accompanied with a bicid red expectoration. The bowels are generally constipated, but not invariably so. The urinary organs are, for the most part, inactive, and the urine reveals, upon "chemical analysis," a diminution of the chlorides—the urine, also, when voided bearing evidence of inflammatory febrile excitement in the system. But by far the most valuable of these symptoms are the tenacious bicid, rusty-colored sputa. But sometimes this symptom is absent; but while there is doubts as to the true nature of the disease, those doubts need no longer exist, when we come to consider the "physical symptoms." And even here, percussion affords but little or no evidence of pneumonic inflammation, as the lungs still remain nearly, if not entirely, as resonant as in health. But when we make a careful examination by "auscultation" of the lungs, we are no longer left in doubt as to the real nature of the inflammation; the "crepitant rale" is heard, and we decide that the patient has pneumonia.

I come now to the consideration of the second division, or that of "hepatization." When effusion of serum succeeds, the lung is in the same "engorged stage;" but, in addition, the lung contains serous watery fluid, mixed with blood, and when cut into, streams forth as from a sponge, and is increased in weight. The lung no longer crepitates, it being in the stage termed by pathologists as red hepatization. Upon the accession of this stage, the breathing becomes more frequent, and the face and extremities of a dingy hue, being the result of the presence of an excess of carbon in the blood. The tongue becomes not unfrequently dry and brown; pulse frequent and small. On auscultating the lungs, no sound is audible except bronchial respiration. The temperature revealed by thermometrical examination is above normal; the evening temperature generally ranging from 102° to 104°, and sometimes still higher. The morning temperature is generally lower than that of the evening, and ranges from 100° to 101°, and in some cases *vice versa*.

In a pneumonic patient with a temperature continuing at 105°, together with a pulse-rate up to 120 beats per minute, with respiration above 40 per minute, the prognosis may generally be considered doubtful.

It is generally held by pathological writers that there are two kinds of hepatization, red and gray; but I believe both belong to the stage of hepatization, the former being primary to the latter, the gray being the inception of the third or "suppurative stage"—suppuration with absorption of the effused fluids, which are contained in the air-cells; and suppuration being the result of the already softened tissue, pus being expectorated, while absorption effectually removes that which is contained within the inter-lobular tissue, thereby establishing "resolution."

But when the extravasated fluid fails to be absorbed, as it sometimes is, an unavoidable consequence—the degeneration into pus of the exudative material—adds greatly to the danger and recuperation of the lung-tissue, an abscess being at this stage of the disease the legitimate result; although the formation of abscess is not necessarily mortal, for I have witnessed in some patients recovery from abscess, with the exception of leaving a portion of the lung either cavernous or cicatrized and contracted.

I will now direct your attention to the "hepatic complication" of pneumonia. It is such a frequent concomitant of pneumonic inflammation that it amounts to almost a necessary part of the disease. The reason why this complication is so persistently present is very apparent, when we consider the effect which the capillary engorgement of the lungs has on the heart.

The right side of the heart becoming "hyperæmic" produces thereby "capillary turgescence" of the liver; for, indeed, the anatomical structure of the parts is such that the blood passes directly from the liver to the lungs, thereby producing morbid action and derangement of the hepatic function.

Pneumonic inflammation has such a direct and pernicious influence over the circulation of the liver, that I have not unfrequently known "hepatitis" to be superadded in this form of complication, producing the symptoms characteristic of "hepatic derangement," such as yellowish coat upon the tongue, a sallow complexion of the skin, with yellowness of the conjunctiva, a straw-colored diminished urinary secretion, with extreme tenderness and enlargement of the liver.

In passing to the investigation of the typhoid complication of this disease, we have only to reflect that we are called to treat a more grave, complicated commingling of diseased action, than in either form of pneumonic inflammation that has passed under review.

In the typhoid complication of this disease, we have, in addition to the pulmonic phlegmasia, an aplastic condition of the blood, with a diminution of susceptibility and vital tonicity of all the tissues of the body. Such a state of the system is exemplified by a frequent small pulse, not characterized by strength, together with a dark-brown and sometimes red tongue, inclined to dryness, with sordes collected upon the teeth, with frequent mental aberrations—the patient uttering half-broken sentences, and finally delirium and coma. In a word, if the patient is of enfeebled constitution, putting on all the symptoms of pneumonia typhodes, he not unfrequently succumbs to this complication of diseased action.

The third and remaining complication of pneumonia which I propose to consider is the inflammation of the pleuritic membrane, which is nothing more than the superaddition of pleuritis with pneumonitis, constituting pleuro-pneumonia.

The symptoms of this complication of disease are characterized by very sharp, lancinating pain in the chest, and not unfrequently at first is limited to one point, and is designated as the "pleuritic stitch;" and there is not unfrequently a large quantity of serous fluid thrown out into the pleural cavity, and, if not absorbed, degenerates into pus, constituting pleural abscess or empyema. And we should always be careful not to confound this form of abscess with pneumonic abscess.

The etiology of pneumonitis and its complications are indubitably due to the vicissitudes of temperature, together with some mysterious unknown blood-poisoning.

I will now direct your attention briefly to the treatment of pneumonitis and its complications. There is perhaps no disease belonging to human ailments of which the treatment has been more discordant than that of pneumonitis. Phlebotomy was practiced at one time—certainly to a fearful extent—together with antimony, mercury, etc., each having its advocates. Then comes forward the flagitious homeopath, and claims the millionth part of a grain of such. alba proto-iodide of mercury or aconite, or something else, will cure almost every case; while there are a few who claim the most brilliant results from the expectant treatment, or wait to see if the "vismedicatrix naturæ" will cure the patient.

I suggest the plan of treatment in this disease which seems to me to be the most rational. The bowels to be opened by a saline cathartic. After a gentle evacuation from the bowels has been procured, large doses of sulph. quinia and opium are prescribed and persisted in until the system is thoroughly brought under their influence. If the pulse should be rapid, frequent, and characterized by strength with great vascular tension, digitalis is indicated, given alternately with the quinia and opium, or with some other arterial sedative, as veratrum viride; but should the symptoms show a tendency to a failure of the vital forces, the arterial sedative should be withheld, and carbonate of ammonia and capsicum given instead. Should there be indications that the nervous system has become seriously involved by innutrition, and delirium supervene, the alcoholic preparations should be given freely.

I am of the opinion that there are no medicinal agents that the physician can employ that will facilitate the resolution of pneumonic inflammation so much as a liberal use of sulphate of quinia and opium. There are good reasons for prescribing these agents—that the former produces a sedative influence in large doses over the general circulation, thereby preventing an undue amount of blood going to the lungs, and also restoring tonicity to the relaxed capillary plexus of blood-vessels in the hyperæmic lung tissue; while the latter quiets pain and allays cough, producing, as near as possible, quietude of the lungs, which is necessary not only to the lungs, but in every inflamed organ or tissue of the body.

It is apparent, therefore, by administering these agents, they act by controlling the circulation, allaying "irritation," and suspending the "fluxionary hyperæmia" to the capillaries of the inflamed "lung tissue," and the "effused fluids" no longer meeting with resistance, push back into the blood-vessels by reason of the "laws of endosmosis," thereby facilitating resolution.

In the hepatic complication of pneumonia, hydrarg. sub mur is indicated with the view of promoting the billiary secretion.

In many cases blisters are very useful (after the general excitement has subsided), and should be applied during the stage of "hepatization." Their topical effect is attended with an excitement which renders them valuable auxiliaries to the internal treatment. Blistering, however, is rarely necessary in the pneumonia of infants. I have generally met the indication by having a jacket cut and adjusted to the whole chest, containing between its layers pulv. flaxseed and mustard, in the form of a catapasm, so as to keep up gentle rubefaction on the cutaneous surface.

A highly nutritious and well-selected diet from the commencement of the disease, the bowels being kept open by mild cathartics or enemata, and the "hygienic laws" strictly enforced throughout the whole progress of the disease, with perhaps some precautionary measures which the wisdom of the practitioner will suggest, will be sufficient for the management of pneumonic inflammation.

Art. 2.—Three Cases of Mushroom Poisoning.

Occurring in the practice of H. P. PEEBLES, M. D., and reported by D. B. JACKSON, M. D., Newcastle, Penn.

Cases of mushroom poisoning are comparatively rare in this country, as they are not very extensively used for food. Some varieties of these cryptogamous plants are wholesome and nutritious, but others are highly poisonous. Even the innocent varieties may become poisonous during certain seasons, or when growing under certain circumstances. The poisonous mushrooms owe their fatal effects to a narcotic alkaloid, called *amanitine* by M. Letillier, which is capable of being precipitated by nothing except iodine and *tannin.* Hence tannin is indicated as its antidote. Besides *amanitine*, some species contain a deleterious acid principle.

Three children (aged respectively 8, 10, and 12) living in the First ward, Newcastle, Penn., ate mushrooms for breakfast, about 8 A. M., July 31, 1874. Their mother says, that in about fifteen minutes afterward they all vomited, and in a few minutes after vomiting they became sleepy and stupid. The younger two were also purged somewhat. The oldest, a girl of 12, had one convulsion. They all became drowsy and went to sleep.

The family physician, Dr. H. P. Peebles, was immediately sent for, but was not at home, and no other was called. Consequently nothing was done for the patient until 1 P. M., when Dr. Peebles arrived. He found them all sound asleep. The girl was the worst, being unconscious, lying with her eyes open and turned up; ability to swallow almost gone, fluids being with difficulty forced down her throat. She could not be aroused by shaking, or shouting in her ear. Her hands and feet were still warm. Considerable quantities of mucus flowed from her mouth. Pulse over 100, respiration ——; pupils sensible to light, somewhat dilated and oscillating. Tickling the soles of the feet produced no reflex action. Her face was swollen and tongue coated. The older boy was nearly as bad, but the younger was not so much affected by the poison.

Dr. Peebles gave them sulphate of zinc, which produced vomiting in all three, although the girl required a second dose. He then administered tannin, which seemed to act as an antidote to the poison in the case of the boys, who began to improve soon. They were kept walking about the room and were given tea to drink—the doctor preferring this to coffee on account of the larger proportion of tannin. The tannic acid had but little effect on the girl, I suppose, because the poison had been already absorbed. She aroused somewhat, but soon relapsed into the condition she was in when Dr. Peebles arrived. He gave her warm tea, and applied cold water to her head by means of a compress.

Dr. Peebles worked with the patients for one hour, and then called me to assist. I arrived at 2.30 P. M., and found the boys able to walk, but still quite sleepy and stupid. No further treatment was given them except to keep them walking about the room. I found the girl in the condition above described. Pulse 100, but regular; respiration 24. No winking of the eyelids. Dr. Peebles had given her about twenty grains of tannin when I arrived, and gave her four or five grains afterward. We kept rubbing her back and limbs, and shaking her, to rouse her up, and every few minutes we would hold her head over a tub of cold water, and pour a stream of water from the spout of a teapot upon her head, face, occiput, and along the spine. The cold douche seemed to have more effect than anything else. We continued this till 4 P. M., when she began to show signs of reviving. Her countenance assumed a more intelligent expression; she began to wink her eyelids; the flow of mucus from her mouth lessened and finally ceased, and she made considerable resistance when we used the douche. But if let alone she at once relapsed into a stupor again. She now became able to swallow, and was given a little brandy every few minutes. We continued to use the cold douche, and she gradually improved till 4.30 P. M., when she could speak and answer questions, although her tongue was thick and her articulation indistinct, and she seemed bewildered, if not delirious.

The reflex movement returned, on tickling the soles of the feet, soon after we began to use the douche. At one time she breathed stertorously for a few respirations. At 5.15 we considered her out of danger, and left her, with directions to the family to keep her awake, give her brandy occasionally, and use the cold douche again if necessary. At 7.30 P. M. I saw the case alone. She was able to walk a few steps, but very stupid and sleepy. Her stomach was irritable, and she vomited a few times. Was given castor-oil, but threw it up immediately. A demulcent mixture was prescribed. She was kept awake until 11 P. M., when she was allowed to go asleep. Next morning we found her entirely over the narcotism, but weak and pale.

Art. 3.—*Of a late Epidemic of Child-bed Fever; together with an Inquiry into the Connection, said to exist, between Puerperal Fever and Erysipelas.*

By THOMAS C. MINOR, M. D., Cincinnati, Ohio.

[*Continued.*]

Dr. C. April —, "death-certificate," from puerperal fever; duration of illness, 3 days. Seven days after, "death-certificate," from puerperal fever; duration of illness, 8 days. Dr. —— lost other patients.

I might go on, and show cases, belonging to other physicians, of the same kind.

It is a sad commentary on this last epidemic, that a few men, who attended cases of erysipelas and puerperal fever promiscuously, should have been most unfortunate in their practice. On the contrary, we notice some physicians, having a large practice, who lost not more than one or two cases of puerperal fever, and no erysipelas cases at all. I think the majority of our physicians refuse to attend confinement cases when they have erysipelas or puerperal fever cases on their hands.

I have used fictitious initials for these *unfortunate* physicians. It is barely possible that my inferences may be incorrect; but I most certainly think, from the study of the death-certificates, *that there is a connection between puerperal fever and erysipelas.* It is a delicate matter to mention such cases; but it is a warning which may benefit physicians in the future, and possibly save the lives of some women.

DURATION OF LAST ILLNESS.—It is generally admitted that patients suffering from puerperal fever have a change for the better or worse before the ninth or tenth day; and if they die, it is before the tenth day, as a general rule.

From a study of the death-certificates, dating from January 1 to July 31, 1873, I have made the following analysis. (In some cases the death-certificates are filled out incompletely, and I shall be only able to give a partial list.)

In January, the average duration of illness of 21 of the decedents was $8\frac{1}{2}$ days. The duration of the shortest period of illness was 3 days; the longest period was 28 days.

In February, the average duration of illness of 15 of the decedents was $8\frac{1}{3}$ days. The duration of the shortest period of illness was 4 days; the longest period was 21 days.

In March, the average duration of illness of 11 of the decedents was 7 days and a fraction. The duration of the shortest period of illness was 55 hours; the longest period was 14 days.

In April, the average duration of illness of the 9 decedents was 6 days and a fraction. The duration of the shortest period of illness was 3 days; the longest was 14 days.

In May, the average duration of illness of the 7 decedents was 12 days and a fraction. The duration of the shortest period of illness was 5 days; the longest period was 21 days.

In June, the average duration of illness of the 2 decedents was 38½ days. The duration of the shortest period of illness was 21 days; the longest period was 56 days.

In July, the average duration of illness of the 3 decedents was 15⅓ days. The duration of the shortest period of illness was 8 days; the longest period was 1 month.

The average duration of illness of these 68 puerperal-fever decedents was then 9 days and a fraction.

The effects of a high temperature on the disease is here manifest. The study of the meteorological table for the period given is not uninteresting. By keeping the temperature of a puerperal-fever ward up to 90° F. an interesting experiment might be made; *i. e.*, to see whether or not a high temperature be beneficial in cases of puerperal fever.

AGES OF THE PUERPERAL-FEVER DECEDENTS.—It is a matter of regret that no record was kept whether these patients were primiparæ or multiparæ; for it is claimed that women with their first child are twice as prone to suffer from attacks of puerperal fever as are those who have borne several children. The ages of the 71 decedents (dating from January 1 to July 1, 1873) amounted, in the aggregate, to 2,035 years. This would give an average age of 28 years, indeed almost 29 years. As the majority of women marry by the time they are twenty-five, I am of the opinion that more multiparæ than primiparæ died during this epidemic; however, this is only a mere matter of surmise, and may not be correct. Four of the youngest decedents were colored women, the oldest being only twenty years of age. These four were most likely primiparæ. The youngest decedent during the whole period of the epidemic was a colored woman, aged sixteen years. The oldest decedent was an Irishwoman, aged forty-seven years.

It is a fact worthy of mention, that the first death of puerperal fever in the present epidemic seems to have been associated with one from erysipelas. In this case, however, the physician in attendance was not to be held responsible. November 5, 1872, we see a "death-certificate," from puerperal fever, on Eighth street. The certificate is signed by Dr. ——. On November —, a "death-certificate," from erysipelas. This shows that a female infant, seventeen days old, died of erysipelas in the same house as our puerperal-fever decedent. This certificate is also signed by the same physician. Here is evidently one of those cases where the infant has been either born with the germs of a disease inherent in it, from which its mother died, or has, after its birth, contracted a contagious disease from its mother. In the case of the woman, the germs developed into what we call puerperal fever; in the case of the child, into what we call erysipelas. Here, evidently, notwithstanding the difference in the type of the two diseases, *they were dependent on a common poison.* Cases of a similar kind are not unusual during epidemics of puerperal fever, so that we can not regard them as mere coincidences when they do occur.

Is there a connection between puerperal fever and erysipelas? If, after the mass of figures we have waded through, we have not been able to learn something regarding puerperal fever and erysipelas it would be surprising. The study of the census tables of 1870, although they fail to give many decided signs of the connection between puerperal fever and erysipelas, still teach a valuable lesson. It is this: *In any place where erysipelas is found, there will be found puerperal fever.* In the absence of more minute particulars than are furnished by the census tables, we are constrained to only give a general conclusion. This conclusion is based on the following propositions:

1. *Erysipelas and puerperal fever seem to prevail together throughout all the states.*

2. *Any marked increase in any one locality of one disease, seems to be accompanied by a corresponding increase of the other.*

3. *Where histories of past epidemics of either disease are obtainable from any of the states, the seeming connection of the two diseases was noticed by physicians at the time of such epidemics, and remarked on.*

4. *For these reasons we are, I think, justified in concluding that there is an intimate connection existing between puerperal fever and erysipelas.*

If we now study the tables of the late epidemic in this city, we can further strengthen our belief, and arrive at an even more definite conclusion in regard to this subject, by basing ourselves on the following propositions:

1. *The two diseases prevailed as epidemics, at the same time, in the same localities.*

2. *Where an isolated death from puerperal fever was noted, outside of the infected districts, a corresponding death from erysipelas was noted in the same locality. This was almost invariably the case.*

3. *Infants die of erysipelas shortly after or before their mothers die of puerperal fever.*

4. *A few physicians, attending puerperal-fever cases and erysipelas cases at the same time, as exhibited by the "death-register," were the most unfortunate in their practice.*

5. *Physicians having large obstetrical practices, who are known to be believers in the doctrine enunciated regarding the connection of puerperal fever and erysipelas, make an exhibit of but few death-certificates from either cause.*

6. *For these reasons we are again justified in thinking there is an intimate connection between the two diseases.*

It is easy to foresee the objections that will be made to these propositions. In the first place, it might be said that typhus fever and scarlet fever are often prevalent at the same time puerperal fever is, and that, for this reason, we might say that there is an immediate connection between those former diseases and the latter; indeed, this connection is claimed, and generally admitted by modern authors. The claim of erysipelas and puerperal fever to a very close connection is on stronger grounds than is generally admitted. In the first place, puerperal fever and erysipelas prevail together, beyond the geographical limits of typhus fever, and in localities where the last-named disease is unknown. Again, puerperal fever is most prevalent, in the United States, in that very section of country where there is the least scarlet fever. I allude to the Southern States. Yet, again, typhus fever and scarlet fever often prevail extensively as epidemics, and no special tendency toward puerperal fever is noticeable, while the appearance of an erysipelatous tendency is *invariably* followed by a decided tendency toward puerperal fever, or an epidemic tendency of the latter is a signal for the appearance of the former. Again, the *interchangeable* character of puerperal fever and erysipelas has long been noticed; the erysipelas poison giving rise to puerperal fever, the latter again giving rise to the former. It is questionable whether puerperal fever ever gave rise to typhus or scarlet fever. I am not claiming, be it understood, that there is no connection between typhus fever, scarlet fever, and puerperal fever. I am only urging what seems to me to be the superior claims of erysipelas to an intimate connection with epidemic puerperal fever.

I am a firm believer in the doctine so strongly urged by Dr. Tilbury Fox, of London, that erysipelas and puerperal fever are entirely dependent on a common poison. Says Fox:* "The existence of a special and peculiar disease (puerperal fever), one *sui generis*, is certainly contradicted by the mass of cases which the records of the General Lying-in Hospital furnishes, for the disease is explicable by the action of an already well-known poison.

"That puerperal fever and erysipelas are rife at the same time is well known; and that during epidemics of the former, the most malignant cases of the latter occur, is undisputed.

"At the General Lying-in Hospital, 1838 the year of greatest mortality, and in this year the death-rate of erysipelas was at its highest.

"During 1854–55, a larger number of deaths took place than in any of the few previous years; and 1855 was remarkable for an excess of deaths from erysipelas. There are causes in action peculiarly predisposing to erysipelas and puerperal fever alike.

"*Predisposing Causes.*—A. *General.*

"1. Such as concentrate: Hospitals and their overcrowding.

"2. Such as interfere with the patient's health: Bad ventilation, bad food, deprivation, hemorrhage, and absorption of clots set, mental.

"B. *Local.*

"1. Presence of irritation: Clots in uterus.

"2. Presence of wounds: Perineal, placental, changes going on in uterus and peritoneum, absorptive act accelerated.

"*The efficient Cause.*—The virus, the special attribute being malignancy. In the case of puerperal fever this attribute is deemed sufficient to guarantee the existence of a disease, *sui generis.*

"Points in which puerperal fever establishes its identity with erysipelas:

"1. They are mutually reproducible. Mr. Bird, in his pamphlet on erysipelas, gives sixteen authorities on this point. Dr. Lee, perhaps, gives the most forcible examples.

"2. The character of the onset is that of erysipelas.

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* Dr. William Tilbury Fox, in Transactions of the Obstetrical Society of London, Vol. III., 1861, p. 368 et seq.

"3. Prodromata slight.

"4. Time of attack frequently at night.

"5. Occurs under same circumstances and at same seasons.

"6. Progress to acute pus formation.

"7. Character of lesions: Acute, diffuse, multiform abscesses.

"8. If eruption exists, it is that of erysipelas.

"9. State of local wounds, etc., painful, hot, tumefied, smarting.

"10. Presence of lymphatic inflammation, bullæ, sloughing, erratic lesions.

"11. Convalescence about ninth day or so.

"12. Time of death before tenth day; half between fifth and ninth in erysipelas. No one who has watched an epidemic of erysipelas, running on to hospital gangrene, and the post-mortem, after a case of lithotomy, for instance, at such a time exhibiting peritonitic and pyæmic lesions, can fail to see the true analogy of puerperal fever and erysipelas; and accoucheurs can not but accept evidence obtained beyond the limits of the lying-in hospital toward the complete solution of the mysteries of puerperal fever."

No better arguments can be adduced, showing the connection between puerperal fever and erysipelas, than those used by this most distinguished English writer.

The decided tendency of the day is to attribute all cases of puerperal fever to a common poison, from which may be also developed typhus fever, scarlet fever, and other so-called zymotic affections. This is very pretty theoretically, and a most reasonable doctrine to accept; but in accepting it, we acknowledge our inability to say what the poison is. The subject of the connection of septicæmia and puerperal fever has been most ably discussed of late, and many interesting experiments have been made in the attempt to prove the community of origin of the two diseases. Among the special papers published on this subject latterly, is that of Dr. A. D'Espine.* Says our author, in the introduction of his article (p. 167): "Since anatomo-pathological investigations have progressed on an equality with a more rigorous and more impartial clinical observation, we have been obliged to recognize the fact that *puerperality* is not governed by influences or special laws;

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* Contribution à l'Étude de la Septicémie Puerpérale. Par A. D'Espine, Interne des Hôpitaux. Archives Generales de Médicine, February, May, August, and October numbers, 1872, Vol. I., pp. 167, 531; Vol. II., pp. 191, 415.

and that, if the particular anatomical conditions to uterine traumatism, and the modifications impressed on the organism by gestation, may give a particular type to pathological processes, nevertheless there is no difference of substance, of nature, between puerperal fevers and surgical fevers; they are sisters. The discoveries made in one of these domains applies at the same time to the other, so that if we could succeed in determining the question of purulent intoxication, of erysipelas, of hospital gangrene—in a word, of all the poisonous influences to which the wounded are exposed—we might determine, at the same time, the problems that the study of puerperal fever raises."

D'Espine claims that puerperal fever is nothing more nor less than septicæmia. The question of the entire identity of septicæmia and puerperal fever is still to be doubted. D'Espine, in speaking of what this poison may be, says (p. 453): "But are there different septic poisons; or, in other terms, the nature of the poison, can it vary? This question, which assumes an attitude likewise for surgical septicæmia, is difficult to determine, because we know very incompletely the chemical and biological qualities of septic materials. Thus, in special pathology, we distinguish *erysipelas*, *hospital gangrene*, *septicæmia*, and *pyæmia*, which all enter into the class of traumatic toxæmia; but, in general pathology, we see that the effects upon the organism of septic poison can be distinguished. This fact appears especially in the history of puerperal septicæmia."

An epitome of the opinions of many writers on this subject for ages past, together with valuable biographical references, may be found in the well-written paper of Dr. A. Lacassagne,* under the heading of "La Putridité en Obstetrique." The reader so inclined may find much that is valuable in the opinions enunciated by various authors regarding puerperal fever, and especially its seeming connection with septicæmia.

One of the most excellent and readable books ever written in the English language, on the special subject of puerperal diseases, is, I think, that of our own distinguished countryman, Prof. Fordyce Barker. In his work, just published,† I notice that Prof. Barker discusses all the theories regarding puerperal fever in his usual clear style, and among others that especially claimed by D'Espine. Says Dr. Barker: "The septicæmia theory is incompatible with the authentic facts which demonstrate that puerperal fever is contagious and infectious. Those who believe that puerperal fever is identical with septicæmia deny that the disease is really contagious, although they admit that it is 'manually transferable'" (p. 464). Again: "Puerperal fever differs from septicæmia in its origin, its modes of attack, and its symptoms. The former disease originates from epidemic causes, and from contagion and infection; the latter, from nosocomial malaria, from autogenetic infection, and from direct innoculation. The symptoms of the former are frequently manifested a day or two before, or during labor, even when the child is subsequently born alive. This fact has been noted by many observers, and I suppose it must have been remarked by every one who has seen epidemics of this disease; but, in septicæmia, the symptoms are never observed before, or during labor, except when the fetus is putrid, as a traumatic lesion is a necessary element for the absorption of the septic material" (p. 467). Again: "That puerperal fever is not identical with septicæmia is demonstrated, also, by the difference in the influence of the two diseases on the infants of the mothers affected. There are two diseases which are extremely liable to occur in the infants of mothers suffering from puerperal fever. Erysipelas is the most frequent, and proves fatal in a large majority of cases. In this hospital (Bellevue) it has been very common in several of the epidemics of puerperal fever. That the erysipelas is not developed exclusively by the vitiated air of hospitals, but is directly the result of the maternal disease, is evident from the fact that it occurs with great frequency in private practice, in the infants of mothers suffering from puerperal fever, who are surrounded by the most favorable hygienic conditions possible in a city. I have seen this in repeated instances, both in the country and in this city, and in families of wealth, where the greatest care was taken to prevent disease, by the removal and destruction of all sources of infection," etc.

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*De la Putridité Morbide et de la Septicémie, Histoire des Théories Anciennes et Modernes. Par le Dr. A. Lacassagne, Paris, 1872, p. 84 et seq.

†The Puerperal Diseases. Clinical Lectures delivered at Bellevue Hospital. By Fordyce Barker, M. D., New York, 1874.

The other disease, so frequently noticeable during periods of puerperal-fever epidemics, according to our distinguished author, is trismus nascentium.

The objections here urged by Dr. Barker are, I think, unanswerable. In an appendix to his book, Dr. Barker remarks: "During the early months of the present year (1873), puerperal fever prevailed in the best parts of the city, and in that class of society possessed of abundant means, and living under as good sanitary conditions as are possible in any large city, to a degree and extent here unknown for the past twenty-five years." Still further on (p. 516), our author continues: "Erysipelas was not epidemic in that part of the city where puerperal fever was rife, nor, indeed, in any part of the city, although there were a few sporadic cases," etc.

This epidemic tendency, of which Dr. Barker speaks, commenced in 1872. If we are to believe the statements made in the "New York Health Report" for that year,* for we find (p. 94), in a summary of the mortality occurring in the quarter ending March 30, 1872, the following remark: "Puerperal diseases produced 136 deaths; their average for the previous five years having been but 71." Or yet, again, in the same health report (p. 100), speaking of the mortality of the spring quarter, the health officer remarks: "*Erysipelas* and *puerperal fever* prevailed extensively."

From this health report we compile the following table, showing that the increase in the puerperal-fever mortality was coincident with that of the erysipelas mortality:

	ERYSIPELAS.		PUERP. DISEASES.	
	1871.	1872.	1871.	1872.
Winter quarter, ending March 30, 1872......	54	64	103	136
Spring " " June 29, 1872.	50	73	90	131
Summer " " Sept. 28, 1872	18	23	67	83
Autumnal " " Dec. 31, 1872.........	23	25	102	104

A close study of this table will enable any one to see that the increase of the two diseases is correspondent from 1871 to 1873. The epidemic of puerperal fever spoken of by Dr. Barker, really commenced in 1872 with the appearance of an increased erysipelatous tendency. So much again for the connection of the two diseases.

Of the deaths classified under the heading "puerperal diseases," we see that 178 of the deaths were from "puerperal metritis" and 109 from puerperal fever. Sixty-nine of the decedents were native-born white women, while 212 were foreigners, and 6 were colored women. The balance of the decedents from puerperal diseases came under different headings. The large mortality among foreigners is noticeable in this connection.

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* Third Annual Report of the Board of Health, New York, April 11, 1872, to April 30, 1873. New York, 1873.

Dr. Braxton Hicks,* who is inclined to believe that an intimate connection exists between scarlet fever and erysipelas, and in this way traces many cases of puerperal fever to the influence of the scarlatinous poison, could not find much analogy if he were to search the "Health Office" records of this city (Cincinnati) for a corroboration of such an opinion.

An epidemic of scarlet fever is at this date (June, 1874), prevailing in this city, although now happily on the decline. This epidemic commenced in May, 1873, *after the subsidence* of the puerperal-fever epidemic. To quote from the "Health Report" (p. 33): "No month was exempt from *scarlet fever*, although there were only 15 deaths from the disease during the first four months of the year. Only one of these occurred in April. After that, the deaths from scarlet fever increased each month, until there were from it 113 deaths in November; 108 died of the same disease in December. The total deaths for the year, from this cause, were 410." Now, according to Dr. Hicks' theory, we should see puerperal fever make its appearance. Mark the sequel. In 1874, up to this date (June 1st), puerperal fever has not been prevalent—less than the usual number that occur in healthy years; the same can be said of erysipelas.

The victims of scarlet fever up to date, from the commencement of the epidemic, number about 800. Now, according to the reports filed at the "Health Office," by the "outdoor-poor physicians," the mortality rate has only been about one patient out of ten. From this, it will be seen that the number of scarlet-fever cases must have been several thousands.

Now, let us look for the erysipelas and puerperal-fever cases that occurred this year. We find from the registry of the "Health Office," that during the last five months, 14 deaths from puerperal fever and puerperal peritonitis have occurred, and 9 from erysipelas. After a careful examination of the "Health Office" records, no connection seems to exist between these cases of puerperal fever and erysipelas and the cases of scarlet fever, save in one instance. On the 19th of January, 1874, a woman, aged 26, died on Hopkins street, of puerperal fever. On the following day, *in the same house*, a death of a child, of the same name as the decedent from puerperal fever, of scarlet fever. These cases were attended by different physicians. No more deaths from erysipelas or puerperal fever occurred in the same house where any case of scarlet fever had died. Mr. Chapman, clerk of the Board of Health, went through the registry and worked up this point.

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* "There is no doubt but that scarlet fever and erysipelas have much affinity; indeed, some have suspected them to be but a slight modification of the same poison, apparently interchangeable." Braxton Hicks, in Transactions of the Obstetrical Society of London, Vol. XII., 1870.

Now, I do not say that there is no connection between puerperal fever and scarlet fever; but, if there be an interchangeable tendency of these diseases, such tendency was not manifest during this present scarlet-fever epidemic. A careful review of the figures of the census of 1870 does not justify such a claim; for, as we have before mentioned, scarlet fever prevailed to no extent in the Southern States, where the puerperal fever is most prevalent, in proportion to population. The census mortality tables of 1860 also confirm this point.

When, in answer to the query, "Does puerperal fever appear to have prevailed more extensively when any general epidemic tendency has prevailed in Dublin?" Dr. Evory Kennedy,* the distinguished Irish obstetrician, replied: "Yes, I have remarked that when continued fever, typhus, or erysipelas were prevalent in the medical and surgical hospitals, puerperal fever appeared to prevail in the lying-in hospital as well as in the city generally. The character of the fever varied also at different times, and occasionally appeared to be influenced in its nature by any prevalent epidemic." Dr. Kennedy continues: "So frequently has metria shown itself afterward, that it is now no longer esteemed an accidental *post hoc;* but they stand in relation of cause and effect. This fact alone goes a considerable way in confirming the idea of a common poisonous principle or miasm."

In a communication to Dr. Kennedy (p. 124 et seq.), Dr. T. W. Grimshaw, of Dublin, after a careful examination of the "Lying-in Hospital Reports," and the Irish census tables, together with the "Reports of the Cork-street Fever Hospital," dating back for many years, makes the following report in regard to the "Co-existence of Metria and other Zymotic Diseases:"

"*Typhus.*—I find that this is the only disease which bears anything like a constant relation to puerperal fever. Thus, of 24 well-marked typhus years, 17 were noted for high mortality in the lying-in hospital. The most remarkable of these were 1758, 1761, 1800, 1801, 1813, 1824 (a year of great mortality from typhus, when but slight puerperal fever prevailed), 1826, in which the greatest typhus epidemic on record prevailed, and was accompanied by the greatest puerperal epidemic known in the hospital up to that time. The hospital mortality in that year was 1 in 30, or 33.3 per 1,000 deliveries—a rate of mortality which has been exceeded but seven times since. In 1845, a similar correspondence is found. In 1847, another great rise in the death-rate accompanied the famine fever of that year. Exceptions are found on several occasions, the most remarkable of which are the years 1821, 1822, 1824, 1837.

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* Hospitalism and Zymotic Diseases, as more especially illustrated by Puerperal Fever or Metria. By Evory Kennedy, M. D. London, 1869, p. 9 et seq.

"*Erysipelas.*—The records of this disease are too meagre to enable us to draw any positive conclusions; but its connection, of late years, with metria is too well known to require proof.

"*Scarlatina.*—I have been able to have twelve distinctly recorded scarlatina years. Of these, I find six associated with increased metria: namely, 1763, 1800, 1819, 1843, 1845, and 1866. In the years 1800 and 1845, typhus was also present; and in the year 1843, the rise in puerperal mortality was slight. Six scarlatina years were unaccompanied by any rise in the metria death-rate; indeed, in the years 1798, 1831, and 1833, the death-rate curve is below the fair-rate line."

The evident leaning of Mr. Grimshaw toward the special typhus-fever poison, as being the one on which puerperal fever is dependent, is noticeable. *Ad interim*, the omission of erysipelas statistics is unfortunate. If we take into consideration the fact that typhus may be said to be endemic in London and Dublin, and in fact throughout Great Britain, it is not surprising that it bears "a constant relation to puerperal fever."

Said the late Dr. Bartlett,* speaking of typhus fever: "Like small-pox, and like scarlet fever, it is always present in Ireland; but, at considerable intervals, we find it increasing immensely in the extent of its prevalence, and after the lapse, usually, of from one to two or three years, again subsiding to its permanent and average standard." Again, we notice, from Bartlett's account of various Irish epidemics of typhus, that the Foundling Asylum at Cork suffered little or none from the typhus in the epidemic of 1817–18–19. Dr. Bartlett says (p. 229): "The fixed and constant residence of typhus fever is to be found in the British Isles. The mud cabins of Ireland, and the damp, dark cellars of the cities of Great Britain, are its true *habitat*. These are its perpetual lurking-places, and here it is always to be found. The terms 'Irish typhus' and 'British typhus' have indeed come to be its most distinctive appellations."

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* Fevers of the United States. By Elisha Bartlett, M. D. Philadelphia, 1856, p. 237.

It is not our intention to here discuss the connection said to exist between typhus fever and puerperal fever. The census tables of 1870 only show a mortality from typhus of 1,770 persons; and I doubt exceedingly whether one-half of these cases were genuine cases of typhus, as typhoid fever is so frequently called typhus, especially by our German physicians (typhus abdominalis), hence a confusion in nomenclature. A careful study of these same census tables does not appear to show any connection between the typhus fever, septicæmia, pyæmia, and other affections with puerperal fever. Now, not denying that this connection may exist, the following propositions may stand or fall, as the proof requires:

1. Epidemic typhus is not always associated with an outbreak of epidemic puerperal fever.

2. Epidemic scarlatina is very seldom associated with an outbreak of epidemic puerperal fever.

3. Epidemic erysipelas is *invariably* associated with an outbreak of epidemic puerperal fever, or *vice versa*.

Now, if these propositions will stand, the relation of erysipelas to puerperal fever can be said to be more constant than either scarlet fever or typhus.

Cincinnati has had epidemics of small-pox and scarlet fever, without the appearance of epidemic puerperal fever, and Cincinnati is outside the typhus-fever limits. The State of Ohio has had epidemics of erysipelas, and with these epidemics the outbreak of puerperal fever was noticed.

Let us, finally, once more turn to the subject of contagion ere we close:

In that most able and excellent article, written by L. Gosselin and Maurice Raynaud,* the former remarks (p. 13 et seq.): "There is a last reason, which, to my mind, always demonstrates the infectious character of the disease (erysipelas), and explains the predilection of the epidemic form for hospitals: it is, that erysipelas often breaks out at the same time as puerperal fever. This coincidence, described by Graves (of Dublin), admitted by Trousseau, has been demonstrated by an *ancien interne* of the Hôpital Saint-Louis, Dr. Pilean Dufeillay. It is true, we might explain it by the atmospherical constitution, and say that the two diseases are due to a special and unknown meteorological condition, without having any influence upon each other. If this explanation was true, "we should not see epidemics limit themselves at one time to one hospital, at other times to another. The pretended medical constitution does not appear to me likely to limit itself in this fashion. I understand much better when a certain number of puerperal-fever cases (this disease is likewise infectious and contagious), being developed in a hospital ward, the miasma emanating from them infects the ward and the adjoining wards, and that among the wounded attacked by these miasms, the poisoning presents the form of erysipelas. I understand, in the same way, that erysipelas existing in a large number of patients, would give rise to puerperal fever. There would be thus a certain analogy of origin between the two diseases."

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* Erysipéle Médical. Nouveau Dictionnaire de Médicine et de Chirurgie, Vol. XIV., Paris, 1871.

Says Jaccoud:[*] "The contagion or poison which engenders erysipelas is totally unknown; the mode and conditions of its transmission is likewise unknown; but the existence, at the same time, of the poison and its diffusibility, is demonstrated by the epidemic form of this exanthemata," etc.

In a very late article on erysipelas, by Dr. Lordereau,[†] the following significant passage occurs: "We shall not cite as an example the suppurative *peritonitis* which very often accompanies the umbilical erysipelas of new-born infants. This lesion appears to us to result much less from erysipelas than from umbilical phlebitis, and, above all, from that general condition which has been called puerperal, and which produces sometimes peritonitis as well as erysipelas, having a seat far from the abdomen," etc. Says Kennedy (Ib. 34): "The proposition, that metria is contagious, is one that I am just as well satisfied of, as that typhus or erysipelas is contagious," etc. Again: "The occurrence of sporadic cases of this disease, leaving no possible trace by which they can have spread by contagion from another parturient female, has, no doubt, given rise to, and confirmed the idea of, its non-contagious nature; but exactly the same thing may be said of typhus fever and erysipelas. They occur no doubt sporadically, but will any one deny their spreading by contagion? I doubt not, however, that many of those cases, which we called sporadic cases of puerperal fever, were cases of traceable contagion, in which the contagion was carried from another case similarly affected, by the medical attendant or nurse-tender."

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[*] Traité de Pathologie Interne. Par S. Jaccoud. Paris, 1871, Tome II., ·d 716.

[†] Production de Pus dans l'Erysipéle. Par Dr. Lordereau. Archives Generales de Médicine, Mars, 1874, p. 288.

Need we go on to multiply our authorities on this subject of contagion? I think not. If the reader desires to investigate the special subject of the connection of the two diseases further, a careful reference to the numerous writers I have quoted will, I think, satisfy the most incredulous that there is a connection, and that they are mutually interchangeable. That many cases reported to be puerperal fever are cases of puerperal septicæmia, I have no doubt, and that these latter cases, while infectious to the highest degree, and capable of being manually transferable, can not be said to be genuine cases of puerperal fever as that disease is observed in its epidemic form, I fully believe; as I likewise believe, that erysipelas and puerperal fever are entirely dependent on the same poison—a belief I have frequently reiterated during the course of this article.

Drs. Edward Rives and N. P. Dandridge, pathologists to the Cincinnati Hospital, inform me that the characteristic lesion in the puerperal-fever cases examined by them, during the time of the epidemic, was *peritonitis*. Histories of some of the typical cases of fever occurring in that hospital have been ably reported by Dr. W. R. Amick,* an *interne* in the institution.

But our task is finished; and incomplete as this paper is, it is to be hoped that from among the mass of chaff a few grains of wheat may be garnered by the future writer on this subject. If such be not the case, I have at least the satisfaction of knowing that many pleasant hours have been whiled away in this attempt to throw light on a somewhat obscure point; *i. e.*, the connection of erysipelas and puerperal fever. "*Vade liber!*"

"Should learned leech with solemn air unfold
Thy leaves, beware!"

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* Cincinnati Medical News, April and May numbers, 1874.

Art. 4.—Hæmoptysis.

By W. H. SULLIVAN, M. D., of Rising Sun, Ind.

Jas. T. Hall, a man aged about twenty-eight years, was violently attacked with hemorrhage from the lungs, on the 16th proximo. I treated with all the best ordinary astringents without much effect for six days, and at the end of the sixth day the bleeding was more severe than ever. The remedies employed were lead, opium, tannin, alum, and such as are commonly used in those cases, with very little perceptible effect; also using iced water to the chest, with warm pediluvia to the feet. As all the remedies had failed, to a great extent, that I had used for more than a quarter of a century, I resolved to try a remedy I had not used in such cases, and which I had not seen recommended in this affection. Supposing the action to be kindred to ergotine, I resolved to try the fluid extract of cotton root, and gave a teaspoonful of it at once, in sweetened water. The effect was, to my mind, almost magical. The hemorrhage in a very short time ceased. I forgot to say that I continued to give small doses for some hours. Now, six days having elapsed, and there being no return of the bleeding, and the patient convalescing rapidly, I thought I would call the attention of the profession to this remedy, hoping to contribute something to benefit suffering humanity. I know it is not safe to praise a drug too highly until physicians have had a more enlarged experience in its use. Was this arrest of hemorrhage only a coincidence? I hope brother doctors will try it more fully.

A Hint in giving Iodide of Potassium.—A useful hint is revived in the *British Medical Journal*, by Mr. Joseph P. McSweeny. He says: " Sir James Paget was the first to call the attention of the medical profession to the following interesting fact—namely, that carbonate of ammonia greatly increases the therapeutic action of iodide of potassium. I have had extensive experience in the treatment of syphilis, and have tried it with the best results, and find that five grains of iodide of potassium, combined with three grains of carbonate of ammonia, are equal to eight grains of the potassium salt administered in the ordinary way."

New Remedies and Selections.

By J. S. UNZICKER, M. D.

Pepsin.—Pepsin, although known to the profession for many years, did not come into general use until of late. This was partly due to the imperfect knowledge we had of preparing it, and its true physiological action. Many tried the wine of pepsin, and pronounced it worthless; others thought they saw some good effects. But none knew at that time that the alcohol contained in good sherry wine was sufficient to destroy the pepsin; consequently what little good results some may have experienced, were undoubtedly owing more to the slight stimulating effects of the wine than the pepsin.

To the practical researches and experiments of Mr. Emil Scheffer, we owe a correct knowledge of the best method of preparing and dispensing this valuable remedy, as also the best method of testing its genuineness. Pepsin, to try it properly, ought to be given by itself, either in powder or in the form of Scheffer's solution. Where acidity of the stomach predominates, as is often the case in dyspepsia, the powder is preferable. But, on the other hand, where there is an inclination to constipation or biliousness, the solution is decidedly indicated. Pepsin will not keep in neutral mixtures, and in alkaline solutions will lose its digestive powers. The same is the case if combined with bismuth, or tannin; consequently all elixirs of pepsin and bismuth, as usually made, can not contain any pepsin, and are of no value whatever as regards the latter.

In 1872, Scheffer published in the *American Journal of Pharmacy* his process for making pepsin—a circumstance to be regretted—for since that time the market has become flooded with some of the most abominable stuff, called "*pepsine, made after Mr. Scheffer's process,*" which are nothing like it whatever, nor even an attempt made at purification, but the mucus all left in, causing it to putrefy and smell badly. Such preparations will soon bring this valuable agent undeservedly into bad repute. It has been proven by actual experiments that mucus has no digestive power whatever, and only deteriorates the preparation. Of seven samples examined by me, only one (No. 2) came near the standard. The following process was adopted: Ten grains of saccharated pepsin, one hundred and twenty grains of coagulated albumen, six minims of pure hydrochloric acid, and one ounce of distilled water, were put in a two-ounce vial and corked. All were then marked and put in a water-bath with a thermometer, and the temperature kept up at 100 Fahrenheit, as near as possible. The vials were shaken every ten or fifteen minutes. The result proved as follows:

No. 1 (Scheffer's). Color, white; free from smell; dissolved rapidly in five hours.

No. 2. White, odorless, dissolving in six hours; solution having a faint odor of H.S.

No. 3. Grayish color, mixed with considerable sodium chloride; dissolved in seven hours.

No. 4. Gray; not entirely dissolved in twelve hours.

No. 5. Light buff color; disagreeable odor; dissolved slower than No. 4, with a strong smell of decomposed animal matter.

No. 6. Drab color; only faint smell in the dry state; leaves much undissolved after twenty-four hours, after which it had a very offensive odor, undoubtedly caused, as in the former, by mucus and other impurities.

No. 7. Dark buff color; dissolved in seven hours; tastes horrid; mucus flocules floating about the solution, with a very disagreeable odor.

Ether for Tape-Worms.—When the anæsthetic power of ether was first discovered, it was only proposed to use it on human beings to render surgical operations painless. Von Heydon, the merciful man who would not inflict pain on any living creature, employed it as long ago as 1830 for killing insects for his collection. Even worms are rendered dormant and helpless by its use. Prof. August Vegel now announces a new application for this anæsthesia for worms—its application to tape-worms. The ether is inclosed in a gelatin capsule and swallowed. The ether is vaporized in the stomach and the worm stupefied, it being then easily removed by any of the usual remedies, against which, when awake, the worm offers a strong resistance.

Hospital Reports.

A CASE OF FIBROID GROWTH, WITH ULCERATION OF THE STOMACH, TREATED IN CINCINNATI HOSPITAL —SERVICE OF DR. C. G. COMEGYS.

Reported by J. L. FIREBAUGH, Resident Physician.

F. H., age 26; Germany; single; laborer. Admitted February 19, 1874. One of his parents died of phthisis. The family history is otherwise good. Patient always had good health before the development of the present sickness. There is no venereal history. Was always quite temperate, taking only a glass of beer once in a while. He has been troubled with constipation for six weeks, and during the last few days his stomach has been very irritable, so that he vomits after almost every meal. He has lost much flesh. Has not suffered with pain to any extent about the stomach, but has always had a sense of uneasiness in that region.

Condition on admission: Man of average height, emaciated, and of very moderate muscular development, sallow complexion, tongue slightly coated, appetite poor, and bowels costive. His stomach is quite irritable. Temperature 98½°, and pulse 49.

Physical examination: Chest movements normal. Apex beat of the heart a little higher than usual. There is a systolic bruit. Point of intensity not well settled. Respiratory murmur feeble on the right side.

Ordered olei tiglii gtt. ss. in pill once per day; also pepsin and bismuth each gr. vj. after each meal, which shall consist of bread and milk only.

20th. The pill was repeated, with no effect. Ordered an enemagogue, containing soapsuds Oj., which produced one small stool. He constantly expresses a desire to have his bowels moved freely.

23d. No movement of the bowels for three days. He took two of the croton-oil pills yesterday, and this morning three pills containing each aloes gr. ij., jalap and hyosciamus each gr. j. Six o'clock P. M., bowels not having moved, an injection was given containing soap suds Oj., castor-oil ℥j., and turpentine ʒj., which procured a very slight movement of the bowels.

24th. Ordered olei ricini ℥ss. every hour, until he has a free operation.

25th. Took nine doses of oil, and had two very slight operations during the night and a very free one at 7.30 A. M. About midnight, he vomited up a large amount of sour acrid matter, which he said burned his throat and stomach.

27th. Bowels still costive. Ordered the following prescription: ℞ elaterium, gr. ss.; ext. colocynth, ext. jalop. ext. hyosciamus, āā gr. v. M. fiat pill, No. 5. Sig. one pill daily, or oftener, if necessary. Also, tr. cinchonæ comp. ʒj. three times per day, at meal times. Bismuth and pepsin powders discontinued.

March 2. Pills were given as ordered, and the bowels moved slightly. His appetite is very poor, and he appears to be failing rapidly. There is a line of dullness across the abdomen in the track of the transverse colon. Elaterium pills were discontinued, and olei tiglii gtt. j., with olei ricini ℥ss., ordered at bed-time.

3d. Bowels moved freely, on account of which he expressed great satisfaction.

9th. His bowels have been kept open since the last date by means of the croton-oil, given as above. He is very much emaciated, and expression of his countenance anxious. There is a circumscribed tumor situated just above the umbilicus, which is believed to be of a malignant nature.

10th. Pulse 84. A. M. Temperature 96°.

11th. Slept well last night. A. M. Temperature 96½°. Complains of burning in the stomach.

12th. Burning in the stomach continues. Ordered bismuth subnitrate ʒss., after taking which the burning ceased.

13th. Had epistaxis last night. Pulse 120°, very weak and dicrotic. A. M. Temperature 98°. Ordered carbonate of ammonia gr. viij. every three hours. Also, spts. frumenti ℥ss. every three hours.

14th. Did not rest well last night. A. M. temperature 97°, pulse 106°. No appetite. Vomited several times during the night, and also had epistaxis.

4 P. M. He eructates a dark gray fluid from the stomach. Has thrown up Oj. in the last two hours. He is failing rapidly.

16th. A. M. Temperature 96°, pulse 94°, very weak.

17th. A. M. Temperature 98°, pulse 100°. He has great fetor of breath; is also troubled with hiccough.

18th. A. M. Temperature 96°, pulse 80°. Eats almost nothing.

19th. Purple spots observed over the abdomen and lower part of the chest. Abdominal tumor has apparently disappeared.

21st. A. M. Temperature 98°, pulse 78°. P. M. Complains of great distress in the region of the bladder. The catheter was passed, and Oj. of urine drawn off, which gave him relief.

22d. Ordered an enema of beef-essence ℥ij. every three hours. Urine drawn off again this evening.

23d. Had beef-essence, as ordered, and retained it. A. M. Temperature 98½°, pulse 120. He passes his urine in bed to-day. His eyes are sunken, and his look haggard.

24th. A. M. Temperature 98°. No pulse at the wrist. P. M. Temperature 98°. Pulse slightly perceptible at times.

Died, 11.24 P. M.

Autopsy by N. P. Dandridge, M. D.—Examination sixteen hours after death. Extending along the lesser curvature of the stomach was an indurated mass of tissue, which reached and surrounded the pyloric orifice. The walls of the stomach were everywhere thickened, and, on opening it, the mucous membrane was found to be softened, and there was an ulceration partially encircling the pylorus, and reaching as far as the ring of indurated tissue spoken of above. Microscopic examination revealed in this indurated mass nothing but fibrous tissue.

The lungs, heart, kidneys, and spleen were normal. The liver was somewhat firmer than usual. The mucous membrane of the bladder was congested.

[*Remarks.*—The notable facts in the case were the slowness of the pulse, which stood at about 50 for several days, and the absence of pain in the gastric region, so common in malignant growths. The vomiting on taking food and the obstinate constipation were very characteristic of cancer. He had no hæmatemesis at any time to lead us to think that a condition of mere ulceration existed; besides, the tumor, which could be felt, excluded the notion of ulceration merely. Ulceration associated with morbid growth of the stomach is of course expected; the burning sensation complained of by the patient, we accounted for by the ulceration.—C.]

Proceedings of Societies.

EXTRACT FROM REPORT OF THE COMMITTEE ON THEORY AND PRACTICE, FOR AUGUST, 1874, READ BEFORE ZANESVILLE ACADEMY OF MEDICINE.

Prof. Bouchut considers diphtheria as primarily a local disease, the system subsequently becoming poisoned from the local affection; hence, at first, he advises application of nitrate of silver to the throat, and later, uses carbolic acid locally. He advises stimulants and good food. *Leipzig Medical News and Library*, August, 1874.

Prof. Gosselin, in the *Arch. Gen. de Med.*, for June and July, in a long article, details a series of experiments on guinea-pigs and rabbits, to determine the effects of the carbonate of ammonia as a toxic agent, and also of ammoniacal urine, introduced into the system by subcutaneous injections.

He concludes as follows:

1. That the normal acid urine, subcutaneously injected, does not produce serious consequences unless injected in large quantity.

2. That where an aqueous solution of the carbonate of ammonia was thus injected, the animals died with convulsions and tetanic symptoms.

3. That where the carbonate of ammonia was dissolved in the normal acid urine and thus injected, that active febrile phenomena ensued, and death in a short time resulted. The local lesions were marked, and very different from those resulting from the injection of normal acid urine and the aqueous solution of carbonate of ammonia.

4. That where ammoniacal urine, as secreted in the human subject, was injected in these animals, it produced an active fever; and by varying the mode of injection, it was possible to produce the different forms of urinary fever. This urine was very poisonous, and its nocuity augmented with the quantity of carbonate of ammonia it contained. The effects are more active if exposed to the influence of the air.

5. Other toxic principles in the ammoniacal urine aid its deleterious influence.

6. The readiness with which normal acid urine undergoes decomposition in the presence of blood or pus, and in contact with the air, explains how, in operations on the urinary passages, complications may often supervene.

Prof. Lasèque, in the same journal, reports a case of spinal meningitis, which he believes was of rheumatic origin. This case recovered under the use of opium and quinine, later belladonna and antimony, later potass. iodide and belladonna and baths, later chloral. He attributes the best effects to chloral.

In the same journal, M. Fordis communicates some new researches upon the action of drinking waters upon lead. The result of which is, that waters which have stood for a long time in lead reservoirs, or in lead tubes, become unhealthy from the presence of the metal in solution or in suspension. He states that such water, therefore, should be filtered before being drank.

In the same journal, M. Is. Pierre communicates his experiments, which demonstrate that the vapor of water may contain lead when it is conducted through lead tubes.

In part 16, Butler's Compendium, Dr. C. H. Todd reports four cases of the successful employment of poke-root in the cure of chronic rheumatism and adenitis of the glands of the neck.

In the same journal, Dr. Thomas K. Dupuis reports the arrest of vomiting during pregnancy, from strychnia, in doses from $\frac{1}{200}$ to $\frac{1}{100}$ gr., given often.

In the same journal, Dr. James Perrigo reports the cure of a bad case of sick headache from the use of guarana, in 30-grain doses, one dose of which was generally sufficient to arrest an attack.

In the *Medical and Surgical Reporter*, July 25, 1874, the following plan of making a mustard plaster is recommended, viz: to use no water and simply mix the mustard with white of egg. It is said such a plaster will not blister.

In the same journal for August 1, it is stated that Dr. Orè, of Bordeaux, has recently cured a young man of poisoning from the bite of a viper by the intra-venous injection of aqua ammonia, 7 drops to 3 drachms of distilled water. In the discussion before the academy which followed, Dr. Thenard stated that the effects of such bites were generally relieved by giving the ammonia per ori.

Another physician reported the cure of such a case by internal exhibition of alcohol.

In the *Medical Record*, August 1, 1874, Dr. Perry reports the successful use of electricity to arrest vomiting of puerperal fever—the positive pole over the 7th cervical vertebræ, and the negative over the stomach.

In the *Medical and Surgical Reporter*, Philadelphia, August 8, 1874, an article by Dr. Brunton, of London, is reported, on the use of the British tr. of aconite in inflammatory and febrile diseases, and as a deobstruent. He thinks its effects much resemble those of blood-letting, but claims that it acts by diminishing heart and vascular tension. He gives it at first in from 1 minim to ¼ minim every fifteen minutes for the first hour or two hours, or until sweating is induced, then the effect is safely maintained by giving minim doses every hour.

In the same journal, electricity is recommended for cholera infantum. The positive pole is placed in the auriculo-maxillary region; the negative, by means of Duchennes' wire-brush, over the stomach, liver, and intestines. Thus the sympathetic is influenced, and the disease favorably impressed. C.

Refreshing.—The following communication to *The London Times and Medical Gazette*, is very unlike the ways of some of the would-be great men of the medical profession of our city, when there is an opportunity to obtain a gratuitous advertisement in the secular press:—ED.

"SIR:—The *Pictorial World* of last week contains an abstract and an illustration of a lecture given by me at St. Bartholomew's Hospital. I beg that you will allow me to state that the editor of that journal has acted in direct opposition to my wish.

"Some weeks ago a person who said he was an artist connected with the journal, called on me and asked leave to make drawings from some of the illustrations of my lecture. I instantly and positively refused, and wrote to the editor that nothing would be more offensive to me than the publication which he proposed. I heard nothing further from him, but he has done what I begged him not to do.

"I venture to hope that I am not thought likely to be guilty of encouraging the appearance of my name in newspapers; but lest any one should suppose that I have even permitted the publication to which I have referred, I desire to show that I did my best to prevent it. I am, etc., JAMES PAGET.

1 HAREWOOD-PLACE, *July* 28.

Selections.

The Scientific Value of the Results of the Post-mortem Examination in the Case of William McCormick, dead of Hydrophobia. By WILLIAM A. HAMMOND, M. D.—The jury impaneled by Coroner Kessler, to inquire into the cause of McCormick's death, was chiefly constituted at the time the *post-mortem* examination was begun, and embraced the majority of the medical gentlemen then present. I was not included in the jury, because, as the coroner said, he desired me to make the microscopical examination of the nervous structures.

I do not wish it to be understood that, in making this histological research, I was influenced in the slighest degree by the coroner's request; for I went to the *post-mortem* examination at the invitation of the attending physician, Dr. Alexander Hadden, was requested by him to make the autopsy, and was prepared to obtain such portions of the brain and spinal cord as I might require, not knowing that the coroner was to interfere in the case. I should, therefore, have made the investigation in the interest of science, and without reference to the coroner in any particular. All I mean to imply is, that my removal of the specimens, and the declaration of my intention to subject them to careful examination, were with his full knowledge and approval. Doubtless he could have prevented me had he been so disposed; that he did not, entitles him to my thanks. I had also visited the patient professionally during the course of his disease.

The jury was composed of Drs. Frank H. Hamilton, T. M. B. Cross, P. W. Cremin, D. F. Leavitt, A. Jacobi, W. W. Strew, W. Schoonover, A. McL. Hamilton, C. P. Russel, and M. Clymer.

I was subpenaed before this jury, and in my examination gave my evidence with becoming respect and decorum, and without putting forward any extravagant claim relative to the importance of the results I had obtained. I was very far from asserting that, in the actual state of our knowledge, they could be regarded as essential or constant conditions. Neither did I make any pretensions to priority. On the contrary, in a letter to the *Tribune*, and in my remarks to the New York Neurological Society, as well as before the coroner's jury, I disclaimed anything of the kind.

But I did claim, and do now, that the lesions existed in conjunction with a group of symptoms designated hydrophobia; that they were an important link in aiding us to arrive at a full knowledge of the pathology of the disease, and that their value was increased by the fact that they were to a great extent identical with similar results obtained by Dr. Clifford Allbutt in two cases of the same affection.

It is scarcely necessary to state that no one in this country can claim priority over me in detecting the existence of the lesions in question as associated with hydrophobia. I have been unable to find a single recorded case in which a microscopical examination of the brain and spinal cord has been made on this continent in the case of a person dead of hydrophobia. In Europe such examinations have been exceedingly few, and, with the exception of the two cases reported by Dr. Allbutt, have led to negative results. I do not except from this statement the case reported by Meynert, for, although deviations from the normal structure were found, they were not of such a character as to be in any direct relation with the symptoms.

Now, the jury found, without a dissenting voice, that McCormick came to his death by hydrophobia. Here their functions ceased. They were sworn to inquire into the cause of his decease, and, having performed that office, it was their duty to have acted in accordance with Prof. Frank H. Hamilton's suggestion, and have adjourned *sine die.* The coroner, however, in excess of his powers, directed them to consider certain points in the natural history of the disease, and to make some suggestions of a practical character to the public.

He furthermore (still in excess of his powers) put to them the direct question, "Whether the *post-mortem* investigations in this case are of any value in determining the pathogeny of the disease?" This question was answered in the negative—Drs. Frank H. Hamilton, T. M. B. Cross, P. W. Cremin, and D. F. Leavitt, dissenting.

No reasons are given by the majority for this remarkable action—an action, I venture to say, unprecedented in the history of that most erratic of all legal institutions, the coroner's jury. No reasons are given for the conclusion that the *post-mortem* investigations are of no scientific value; but from members of the jury I learn that two objections were brought forward:

1. That the results were of no importance.

2. That the microscopical examination being improperly made, the appearances were probably produced by the reagents to the action of which the tissues were subjected.

These objections I propose to answer, and then I shall have something to say relative to the *animus* which influenced some members of the majority, and of their competence to pass judgment in any matter requiring an acquaintance with the minute anatomy of the structure involved, or the microscopical manipulation requisite in studying histology.

1. The symptoms of hydrophobia are of such a character as to show that the cortical substance of the brain, the medulla oblongata, and the spinal cord, are in some way or other disordered. The mental symptoms indicate the implication of the peripheral gray matter of the brain; the spasms in the throat, the alterations in the character of the voice, the irregular respiration, and the disturbance in the action of the heart, show that the medulla oblongata is involved, and the convulsive movements in the muscles of the neck and chest point to trouble in the upper part of the spinal cord.

Dr. Clifford Allbutt, as I have said, found by microscopical examination that in two cases of hydrophobia the cortical substance of the brain was in a state of granular degeneration. Now, granular degeneration is often the first step in fatty degeneration, and in McCormick's case the cortical substance of the brain was found by me to be in the last-named state. Is this a fact of no scientific value, when it is well known that during the course of his disease the patient was highly delirious? Will the gentlemen of the majority pretend to tell us that there is no relation between delirium and structural changes in the cortical substance of the brain?

Examining the medulla oblongata, I discovered numerous extravasations of blood, to which, however, I attached only a secondary importance; but when in addition I found the nuclei of the pneumogastric, the hypoglossal, and the spinal accessory nerves, in a condition similar to that existing in the cortical substance of the brain, I considered the matter of great moment. In Dr. Allbutt's cases these parts of the medulla were the ones ascertained to be involved. Is it of no scientific value in a case in which there are spasms of the larynx and pharynx and of the respiratory muscles, and irregularity of the heart, to find the points of origin of the nerves which go to the parts in question in a state of structural disorganization? Is it of any scientific value to find, in cases of glosso-labio-laryngeal paralysis, disease in the floor of the fourth ventricle involving the nuclei of the nerves distributed to the paralyzed parts? And will those jurymen of the majority, who know anything of the pathological physiology of the two diseases, allege that a structural change is of any less importance in the one than in the other?

As regards the spinal cord, the upper part alone of which was examined, I ascertained the existence of granular and fatty degeneration of the gray substance and of the nerve-roots, together with nuclear proliferation of the neuroglia-cells of the white substance. Dr. Allbutt discovered like conditions in those parts; and I assert that in a case in which there is spasm of the muscles of the neck and chest, and disturbance of the function of the spinal accessory nerve, as there were in McCormick's case, it *is* a matter of scientific value to find the center from which the nerves come in a state of profound disease.

If the majority had declared that in the present state of our knowledge it could not be determined to what extent or in what manner the symptoms were dependent on the lesions, there might have been some excuse for their action. It is not to be supposed that physicians who are not histologists or microscopists can give a very decided answer to such a question as was submitted to them by the coroner. But they assumed to answer it, and they answered it in a way which certainly can not redound to their credit.

Why, even if I had found the brain, the medulla oblongata, and the spinal cord, in a state of perfect integrity, the result would have been of some scientific value in determining the pathogeny of the disease.

3. Was the microscopical examination improperly made, or were the appearances I have described produced by the reagents employed? Of course, if this latter was the case, then the results were not due to a morbid process going on during life, and all that I have said in regard to their value falls to the ground.

It was very apparent to me, during the course of my examination before the jury, that one of them at least (Dr. Jacobi) had somehow or other imbibed the notion that the changes were the consequence of the action of the alcohol which I had used as the hardening agent. The absurdity of this idea will be apparent when I state that my process was almost identical with that employed by Lockhart Clarke in his studies of the constitution of the nerve-centers; that it is one sanctioned by Frey, and that I have employed it for many years in the examination of diseased nerve-tissues. The chromic-acid process is certainly preferable in the examination of normal nervous structures, but it takes a long time, and it is liable to cause disintegration of tissues already altered by morbid process. For such structures alcohol and a low temperature are preferable, and they have the additional advantage of allowing examinations to be satisfactorily made in a few hours instead of after several weeks, and the sooner they are made the better.

I defy any juryman of the majority to produce, by any degree of maceration in alcohol, such changes in the brain, medulla oblongata, or spinal cord, as I have detected. The slightest acquaintance with microscopical manipulation on their part would convince them that such a result would be impossible.

But my researches were not restricted to the examination of specimens hardened with alcohol. The chromic-acid process was also employed; the sections are still in my possession; several of them are mounted in Canada balsam, and have been studied by numbers of my friends. They will also be exhibited at the next meeting of the New York Neurological Society, and any one who wishes can then inspect them.

Some of these sections show the fine granular degeneration of Allbutt, in conjunction with the decided fatty degeneration I have described—a fact which leads me irresistibly to the conclusion that they are stages of one morbid process.

In the remarks relative to the majority of the coroner's jury which I have made and am about to make, I desire to except Drs. Clymer and Allan McLane Hamilton, both of whom have disclaimed, in manly notes addressed to me, any desire to detract from the value and reality of the results obtained. Dr. Clymer informs me in his note, that he drew up the resolution himself, and limited the expression of opinion entirely to the value of the results in elucidating the pathogeny *or mode of origin of the disease.* That he is sincere in his declarations I am very sure, but I am also equally certain that several of his colleagues did not put so restricted a meaning on the word "pathogeny." I am myself of the opinion that it is fairly applicable not only to the genetic process by which the disease is started, but also to the etiology of the symptoms. That it is liable to be misconstrued is very evident from the use made of it in an article published in the *Medical Record* of August 1st.

In undertaking to study the minute anatomy of the nervous structure involved in hydrophobia, I did not venture upon a task for which I was unprepared. I have been a microscopist for more than twenty years, and have labored, not altogether without success, to advance science in the direction of histology, as many of my friends very well know. I have made special study of the histology of the nervous system.

For any honest difference of opinion I have no other feeling but that of profound respect; but there is a hostile and a friendly way of differing, and several members of the majority, notably Drs. Jacobi and Russel, have chosen the first named. They have, I believe, shown a degree of animosity for which I am entirely unable to account. It is true, Dr. Russel had, a few weeks previously read a paper on hydrophobia before the County Medical Society, a full abstract of which appeared the next morning in one of the daily papers, but I am not aware that he has a monopoly of the subject; it is true, Dr. Jacobi might with truth allege that I am not a German, but I have the most sincere appreciation of the acquirements of our Teutonic brethren, and surely the mere fact of an inquirer having the misfortune to be born an American should not suffice to deprive his investigations of all scientific value. That these gentlemen, and those who acted with them, have any such qualifications as would render them competent to sit in judgment on one of their own colleagues in a matter involving a knowledge of the anatomy and histology of the nervous system, I have yet to learn. For all I know, they may be the masters of us all on these subjects, but, if they are, they have not hitherto chosen to make the fact manifest to the rest of us.

I therefore deny their right to bring into an official act, like the verdict of a coroner's jury, an opinion relative to the scientific value of investigations undertaken and conducted in good faith by one of their colleagues in the medical profession.

I deny that they have any justification for such action either morally or scientifically. And I question their scientific competency to pass a judgment in matters which they never showed their ability to investigate, and in regard to which they have not even given evidence that they possess any special knowledge.

A word more relative to the publication of the proceedings of the

Neurological Society in the newspapers of the following day, and I shall end what I have to say on the subject.

That the publication of purely medical communications in the newspapers is to be deprecated, no one is more ready to admit than myself. I have never made or sanctioned the making of any such publication in my life. But there is a class of subjects, partly medical, partly sanitary, or partly involving matters of social economy in other directions, which it is customary to publish more or less fully in the public press; indeed, which it is impossible to keep out of the daily newspapers. It is customary for the reporters to be invited to attend the meetings of the societies before which such subjects are considered. In times of great excitement relative to some particular disease the daily journals seek with avidity for information, and I am not aware that the propriety of giving it to them has heretofore been questioned. The cholera, trichinæ, typhus fever, the Siamese twins, etc., have been fully described by physicians in the columns of the daily press, and the reports of scientific investigations have been given in their own language. A prominent physician's lectures on strictly medical subjects were very fully reported in the columns of the *Tribune*. Dr. Dupuy's remarks on the functions of the brain, made before the Society of Neurology and Electrology, were published, in abstract, in the *Times;* the proceedings of the Medical Library and Journal Association, of the County Medical Society, and of the Academy of Medicine, frequently appear the next morning in the city newspapers; and the proceedings of the American Medical Association, with abstracts of the more important papers, are not only published in the local secular journals, but appear more or less fully in newspapers throughout the whole country. If there is any impropriety in this, why has it not been noticed before? Perhaps the woodcuts which the *Tribune* published are the offending cause. The drawings were given after much solicitation from the editor, and why should they not have been? If the line is to be drawn at woodcuts, it ought to have been drawn before, for woodcuts of the anatomical peculiarities of the Siamese twins were printed in the daily press, and several years ago were given of the trichinæ.

If any one is to be attacked for allowing matters of general interest, partly medical in their character, to be published in the daily newspapers, let us begin somewhere near the beginning. My friends Drs. Parker, Dalton, Clymer, Brown-Séquard, J. C. Peters, Lente, Pancoast, Bartholow, Garrish, Sims, Doremus, Hamilton, Sayre, Cross, Wagner, Hadden, A. McL. Hamilton, Beard, and many others, and even Drs. Jacobi and Russel, should be first arraigned.

In regard to the McCormick case, half a dozen reporters were present at the *post-mortem* examination, and the next morning the newspapers contained their reports. How did those gentlemen get there? I did not ask them. The only persons I invited were Drs. Frank Hamilton, Clymer, and Cross. The reporters had certainly been notified by some one, for, though they are proverbially keen after news, they could scarcely have scented out the time and place of the *post-mortem* without some intimation.

I am conscious of having done my whole duty in the matter of the *post-mortem* of the remains of McCormick, and I am not, therefore, satisfied to have others, who may feel chagrined, attempt to put me in a false position.—*New York Med. Jour.*, *Sept.*, 1874.

Diphtheritic Paralysis, by Sir J. R. Cormack, M. D.—Diphtheria by Mr. Prangley—Discussion.—Sir John Rose Cormack, of Paris, read a paper entitled "Diphtheritic Paralysis: its Natural Course, Pathology, Treatment, and Relation to Paralytic Affections following Fevers." The following is an abstract:

The author began by describing a minutely observed very severe, but typical, case of diphtheritic paralysis. The main object of the paper was to elucidate the natural history of the affection, which he looked upon as the true guide to the prognosis and treatment of each case—so far as a guide exists irrespective of the individual peculiarities of the patient, and the character of the disease in respect of the district, season, and race in which it occurs, and (should the disease be prevailing as an epidemic) the constitution of the epidemic. The most skillful physician can not cure pneumonia, typhoid fever, or diphtheria; but he can guide to recovery many patients suffering from these diseases who would be lost by the routine administrator of remedies. Medicines are sometimes exceedingly useful in diphtheritic paralysis, as well as in the earlier stage of diphtheria; but in each case, and in each epidemic, we find that the efficacy of particular remedies varies with the variation in the therapeutic opportunities. The author regarded a generous, easily assimilated diet as the basis of treatment in all stages and forms of diphtheria and diphtheritic paralysis; ferruginous medicines are nearly always useful, but, like all other medicinal agents, they have their times for being given and for being withheld. In diphtheritic paralysis, the persistent use of local stimulants, and particularly small bands smeared with a pungent paste composed of mustard, ginger, and lard, constitutes the most useful topical treatment which can be adopted. Electricity has its opportunities, and is sometimes most beneficial. Change of air, the douche, and short courses of nux vomica, are agencies which frequently give a start to a lagging recovery. Still, we must never lose sight of the fact that the paralysis has a definite career to run; and that, if the patient can only be got to eat and drink well, and digest his aliment, he will, at the end of a longer or shorter time, be restored to health, provided always, of course, that no insuperable obstacle exists, such as application of the muscles of respiration in the paralysis. In discussing the pathology of the affection, the author referred to recent German and Italian physicians who have described autopsies in cases of diphtheritic paralysis, in which they found a structural change in the gray and white matter of the medulla, which appearances some of them have termed disseminated myelitis. The author looked on these appearances, in the cases referred to, as secondary. Diphtheritic paralysis, though it has its own peculiarities and specialities, is similar in kind to the paralysis which we meet with as a sequel of typhoid fever, relapsing fever, scarlatina, and dysentery. In all it is peripheric. Its invariable starting-point is the velum pendulum palati; and that is a distinctive peculiarity between it and the paralysis following typhoid fever, relapsing fever, scarlatina, and dysentery.

Mr. Prangley, of Aylsham, also read a paper on "Diphtheria." In the debate which followed, Dr. Eade, the president of the section, Dr. Russell Reynolds, and Dr. Peter, of Paris, took part.

Dr. Eade claimed to be the first English author who had published cases of diphtheritic paralysis; his paper on the subject appeared in July, 1859.

Dr. Peter concurred in the opinions expressed by Sir J. Cormack, that there is always a spontaneous tendency to recovery, that the affection is peripheric and reflex in its origin, and that it always begins in the veil of the palate.

Sir John Cormack replied at considerable length. He said that it was not safe to found our treatment of diphtheria only upon what we ourselves may have seen and done. A practitioner may have seen in some particular locality, or in some particular epidemic, nothing but recoveries; and if he have applied iodine locally, and given zinc or iron internally, he may be inclined to attribute the successful issue of his cases to the treatment which he pursued. Unless he be as conversant with the experience of others as with his own, he may long slumber under his delusion; but the time may come to him, as it has come to others, when, in spite of his cherished remedies, local and general, he will see a large proportion of the attacked perish from croup, or be saved only by tracheotomy performed in good time; or die, it may be from the exudative affection descending to the minutest bronchial tubes. The local use of applications to the throat of a diphtheritic patient is fraught with infinite danger to the applier. Many medical practitioners and medical students have received the diphtheritic poison in the spit of their patients, involuntarily ejected on the application being made. Promising young physicians, and some older men—celebrities in medicine—have died of diphtheria so contracted. Hence we learn, that, if we do apply anything to the throat, we can only do it with safety to ourselves if we wear a mask. But all potent applications to the throat have ceased to be in favor with those who have seen most of diphtheria. They say that iodine, nitrate of silver, and the like, in bad cases produce increased exudation; while in mild cases, where the exudation tendency is moderate, they seem to do little or no harm. The only, or almost the only, local applications now used by the author are the glycerat of borax of the British Pharmacopœia, and a weak solution of chlorinated soda or potash. These promote the separation of the pellicle, and do not irritate the mucous membrane. The appearance of albumen in the urine is not in itself of evil prognosis. In many cases in which the urine has been intensely albuminous, we have complete recovery. Diphtheria is essentially characterized by intermittence in the gravity of the symptoms; a lull, often mistaken for the dawn of convalescence, is not at all unusual. After such a lull, as a prelude to an exacerbation of symptoms, we can, usually, by the thermometer, detect a rise in temperature, and a concurrent appearance or reappearance of albumen in the urine. Touching the differential diagnosis of simple membranous sore throat from the specific disease diphtheria, the author thought that it could neither be determined by the presence nor by the absence of fever, nor by any other than one test—a test simple and sure. Apply a small blister to the arm or elsewhere; if the case be diphtheria, the raw surface will become covered with diphtheritic pellicle; if it be not diphtheria, no false membrane will appear.—*London Medical Times and Gazette.*

Crum Brown on the Sense of Rotation.—In the last part of the *Journal of Anatomy and Physiology*, Dr. Crum Brown states he has for some time past been convinced that we possess a sense of rotation quite distinct from all our other senses. By this means we are, he thinks, able to determine: 1. The axis about which rotation of the head takes place; 2. The direction of the rotation; and, 3. Its rate. His experiments were conducted by placing a stool on the center of a table capable of rotating smoothly about a vertical axis. Upon this the experimenter sat, his eyes being closed and bandaged. An assistant then turned the table as smoothly as possible through an angle, of the sense and extent of which the experimenter had not been informed. It was found that with moderate speed, and when not more than one or two complete turns had been made at once, the experimenter could form a tolerable accurate judgment of the angle through which he had been turned. By placing the head in various positions, it was possible to make the vertical axis coincide with any straight line in the head. Considerable differences of accuracy exist in different individuals. The explanation given by Professor Crum Brown is, that each canal has an ampulla at one end only; and there is thus a physical difference between rotation with the ampulla first and rotation with the ampulla last; and we can easily suppose the action to be such that only one of these rotations (say that with the ampulla first, in which case, of course, there is a flow from the ampulla into the canal) will affect the nerve-terminations at all. One canal can, therefore, on this supposition, be affected by, and transmit the sensation of rotation about one axis in one direction only; and for complete perception of rotation in any direction about any axis, six semicircular canals are required in three pairs, each pair having its two canals parallel, or in the same plane, and with their ampullæ turned different ways; and this is just what is found in all animals he has examined that have the exterior canal of one ear very nearly in the same place as that of the other, while the superior canal of one ear is nearly parallel to the posterior canal of the other.—*London Medical Record.*

Translations.

M. Leon Colin, in the *Archives Gen. de Medicine*, reports in a long and exhaustive article in the June and July numbers, concludes that there is no distinct form of disease in galloping and acute phthisis, and that these are the same disease as ordinary phthisis, modified by the condition of the system of the patient or his surroundings—some cause or causes which develop a latent or chronic consumption into an acute phthisis. He illustrates his conclusions by numerous cases of phthisis.

Dr. F. Panas, surgeon of the Lariboisère, Paris, gives the following conclusions in relation to an affection of the radial nerve, commonly believed to be rheumatic in its origin:

1. The great majority of cases, if not to say always, of idiopathic paralysis of the radial nerve, are caused by fixed and temporary compression of the nervous trunk.

2. This compression acts invariably upon the portion of the nerve where it is superficial and rests upon the resistant surface of the humorus, between the long supurator and the tendon of the biceps.

3. The agent of compression may be the weight of the body, or even the head upon the arm as a pillow.

4. The prolonged pressure upon this point is an indispensable cause in the production of this paralysis.

5. It almost always occurs in sleep, which is generally profound.

6. Drunkenness and great fatigue acting during profound sleep favors the production of the paralysis.

7. It is possible, at first view, to mistake the cause, to detect the compressure of the nerve—the development being sometimes late and progressive.

8. For our part, we have never heretofore recognized a single case which should be attributed to cold, and the number of which we have observed exceeds thirty.

9. Pathological anatomy and physiology, as well as the etiology and symptoms of this paralysis, compared with paralysis from mechanical causes, in a word, concur in assigning to it a place among the last.

10. Cold and rheumatism can not explain the peculiarities offered by this paralysis, while all is explained wonderfully in admitting compression as the cause.

11. Electricity always, and quite rapidly, cures this paralysis, which proves that the compression of the nerve is neither strong enough nor prolonged enough to cause an alteration in it. The preservation and electrical contractibility of the muscles demonstrate the same thing.—*Archives Gen. de Medicine*, June, 1873, p. 671.

Dr. E. Delens, Fellow of the College of Medicine, France, publishes in the *Archives Gen. de Medicine*, May number, 1873, the following conclusions in relation to fractures of the inner extremity of the clavicle:

1. Under the denomination of fractures of the inner extremity of the clavicle he would include all fractures which are seated in the inner third of the bone, or those within the limits of the insertion of the aponeurosis of the sterno-mastoid.

2. These fractures are not so rare as might be supposed from the few works which have been published on this subject.

3. Muscular contraction has been the cause of these fractures in more than one-third of the cases. These constitute veritable fractures by rending from the contraction of the sterno-mastoid muscle.

4. These fractures are generally attended with but little displacement. Mobility and crepitation are rare. Fractures due to muscular contraction resemble incomplete fractures, accompanied with considerable swelling near the insertion of the sterno-mastoid. The functional signs are not peculiar.

5. More often these fractures are not recognized, from the circumstances under which they are produced, and especially as the usual signs of fractures are absent. They are generally mistaken for incomplete luxations of the head of the clavicle from below upward.

6. It is always possible to determine if the head of the clavicle is in situ by searching for the interlicular line of the sterno-clavicular articulation, and comparing its location with the same line on the sound side.

7. The prognosis, course, and duration of these fractures present nothing peculiar.

The treatment recommended varies. Boyer's, Fox's, Hamilton's, Velpeau's, Dessault's apparatus, bandage, Hartshorne's net-plan, the simple sling of Hamilton, have all produced good results. [We may add here our own plan, with adhesive plasters applied in a peculiar manner, which was successful in two instances. But these were not of the inner third, but one of the middle, and the other at the outer third. Several months since, we dressed a fracture of the middle third of this bone with the simple sling of Hamilton, passing over to the sound side of the neck under the elbow of the affected side, with a body-band over fore-arm and lower part of the arm. This case I have just seen (June 2, 1873), and find perfective union and apposition of the bones.—TR.]

The author gives twenty-eight cases. Eight occurred under his own observation. and the remaining twenty he has collected from various works.

One peculiar fact we should state, which is mentioned by Dr. Delens—viz: that in fracture of the inner-third of this bone from direct violence, the swelling is less than when it occurs from muscular action. The reason of this seems to be that, when muscular action is the cause, the periosteum is generally separated freely, and effusion takes place beneath it and into the synovial cavity of the joint, and possibly into the sheath of the sterno-mastoid. Hence the swelling is harder in character, and presents a furrow through the swollen region which can be felt, and corresponds to the inter-articular line of the sterno-clavicular joint.

Erichsen says when this bone is fractured by muscular action, it usually occurs at the middle third, but does not mention fracture of the inner third. Hamilton gives two cases of this fracture; Malgaigne also two. Grou has never met with an instance of this lesion, before or after death. Gant, Bramby, Samuel, nor Sir Astley Cooper speak of this fracture. Liston merely mentions it. Syme says nothing upon the subject. Gibson states it may occur, but gives no cases. Neither John nor Charles Bell mention the matter, and neither Miller nor Billroth mention it.

It will thus be seen that this lesion is sufficiently rare to merit attention to this variety of fracture.

It is evident that the umboid ligament may or may not be ruptured in this fracture. C.

Editorial.

We are amazed beyond expression to find that the great Dr. Hammond should consider it necessary to make a formal defense of his scientific investigations as results of the *post-mortem* examinations in the case of William McCormick, dead of hydrophobia. He carefully states that "the jury impaneled by Coroner Kessler, to inquire into the cause of McCormick's death, was chiefly constituted at the time the *post-mortem* examination was begun, and embraced the majority of the medical gentlemen then present, while He was excluded from the jury because, as the coroner said, he desired Him to make the microscopical examination of the nervous structures. Was not Coroner Kessler to be commended for his admirable choice of a microscopist? Surely no gentleman present or absent would have dared to dispute with the eminent specialist as to the exceeding fitness of the great man to perform the labor assigned Him. Does He not remind us that, "in undertaking to study the minute anatomy of the nervous structures involved in hydrophobia, He did not venture upon a task for which He was unprepared,"—that He "had been a microscopist for more than twenty years, and labored, not altogether without success, to advance science in the direction of histology, as many of his friends very well know?" Verily, why art thou, O Chiefest of Specialists! so modest in thy statements, when all the scientific world knows, beyond a peradventure, that thou hast not hid thy light under a bushel, but set it on a candlestick, that every poor and insignificant doctor might read, by the effulgent glory that radiates from thy nervous system. Why should He, the I AM, be influenced by the coroner's request, when He so innocently "went to the *post-mortem* examination at the invitation of the attending physician, Dr. Alexander Hadden, being requested by him to make the autopsy, and was prepared to obtain such portions of the brain and spinal cord as He might require, not knowing that the coroner was to interfere in the case." Beautiful simplicity, thou art charming to behold! "He should therefore have made the investigation in the interest of science, and without reference to the coroner in any particular." So capital an opportunity to add yet more to the light that should illumine the dull and darkened minds of the medical profession was not to be allowed to pass into oblivion, coroner or no coroner.

Yea, shall not the whole world pronounce benedictions on that coroner for creating so remarkable a coincidence, as to appoint the man who alone came prepared to do the work, as microscopist and examiner-in-chief of the brain and spinal cord of the unfortunate man, McCormick?

Then there was the jury selected from the medical men who happened to be present, composed of doctors of both high and low degree. As an intellectual body, they averaged high; but when the time came for voting on what should be the verdict, the mean men outnumbered those whose minds had been permeated by the light of science as evolved from the brain of the mighty man of Gotham. Notwithstanding which, did not the great I AM, in His examination before the jury, give His evidence with becoming respect and decorum, and that without egotistically putting forth any extravagant claim relative to the importance of the results He had obtained? Nor did He immediately make any pretensions to priority; but, on the contrary, in an advertisement in the *Tribune*, and in his remarks to the New York Neurological Society, as well as before the coroner's jury, disclaimed anything of the kind. Could it be that any doctor of mean and low degree would insinuate such a vile slander as to suggest the contrary? But, on the other hand, did He not find lesions to a great extent identical with similar results obtained by Dr. Clifford Allbutt, in two cases of the same affection? And but for those unfortunate cases examined, and their results put upon record, He would most justly have deserved the credit of making an important *original* discovery. However, no other man besides Dr. Allbutt ever did see such sights as were revealed by His microscope; and as epidemics of hydrophobia do n't often occur, His name may even yet be perpetuated in history in connection with those dreadful creatures—a coroner's jury composed of medical men.

The giant defender proceeds to make the astounding observation that "the jury found, without a dissenting voice, that McCormick came to his death by hydrophobia;" then lectures the jury (stupid men) as to what their duties are in such grave cases. Even the coroner comes in for a gentle admonition for exceeding his powers, and asking this ugly question of the meddlesome jury: "Whether the *post-mortem* investigations in this case are of any value in determining the pathogeny of the disease?" This question was answered in the negative—four jurors assenting; six wicked men of low degree saying "nay" to the foolish interrogation, and they are now castigated for giving no reasons for this remarkable action. Even that legal institution, a coroner's jury, passes under the ban.

The great specialist, of more than twenty years' experience, learns that two objections were brought forward:

"1. That the results were of no importance.

"2. That the microscopical examination being improperly made, the appearances were probably produced by the reagents, to the action of which the tissues were subjected."

Was there ever before a coroner's jury impaneled that had such brazen assurance? Would any body of sane men presume to question the correctness of those investigations, or the fact that they almost exactly resembled that other man's in their results? Such wicked men of low degree must have an *animus*, and the great I AM at once questions "their competence to pass judgment in any matter requiring an acquaintance with the minute anatomy of the structures involved, or the microscopical manipulation requisite in studying histology." Ye poor deluded creatures, do you know that you are born, that you dare to have an animus, or question any acts of Him who, before He had been a specialist for twenty years, assumed to be dictator to the whole medical profession? Verily, you were not in your right minds.

We are next treated with a disquisition telling how very much McCormick's case resembled those of Dr. Allbutt's. Like the parson who said that men and women were created just alike, with the exception of a slight variation, "but," he continued, "thank the Lord for the variation," the giant defender proceeds modestly to say: "It is not to be supposed that physicians who are not histologists or microscopists can give a very decided answer to such a question as was submitted to them by the coroner." O ye insignificant doctors of low degree! what were you cogitating about that you presumed to differ with the Giant Dictator?

Another disquisition is delivered to those poor miserables who are ignorant of the methods and reagents employed by the great and learned specialist, defying either of the six doctors of low degree to produce such marvelous changes in the brain, medulla oblongata, or spinal cord as He detected.

Is it to be expected that men who have not made a specialty of microscopy and histology for less than twenty years will be able to cope with the man who assumes to measure out knowledge and experience to the profession as a tailor measures cloth, proportioning it according to your capabilities? Should you have the moral courage to make the attempt, first consider the maledictions that are liable to be heaped on your poor defenseless head.

Two of the aforesaid jurymen, being grieved that they had so unwittingly wounded the sensibilities of the Giant Dictator, poured oil and myrrh upon the sore "by disclaiming any desire to detract from the value and reality of the results obtained."

Another point the investigator attempts to make is, that because some of the jury differed with him in opinion they were hostile to him; and, although they were men who are mean and of low degree, one of them had investigated the subject of hydrophobia a short time previous, and prepared a paper which was read before the County Medical Society. For all that, he is now getting his deserts for his assumption as follows:

"That these gentlemen, and those who acted with them, have any such qualifications as would render them competent to sit in judgment on one of their colleagues, in a matter involving a knowledge of the anatomy and histology of the nervous system, He has yet to learn."

He denies "that they (the jury) have any justification for such action, either morally or scientifically," and questions "their scientific competency to pass a judgment in matters which they never showed their ability to investigate, and in regard to which they have not even given evidence that they possess any special knowledge."

Just here, it seems to us, that when the great specialist assumes a high tone of morals, he should be very careful as to his statements.

Finally, we come to the defense of the publication of the proceedings of the Neurological Society in the newspapers of the following day. He deprecates the publication of purely medical papers; but that the propriety of publishing communications that are partly medical, or partly sanitary, or partly involving matters of social economy in other directions, is not questioned. The bars of that fence are very easy to let down, and justifies himself that, because others have been equally guilty, He should not be criticised. It seems to us that a man who claims to stand on the very top rung of the ladder—who enjoys a clear perspective, with no more fields to conquer—a man who organizes and sets in motion a medical society, of which he at once becomes the chief high dignitary—is the very man who should set an example to doctors of mean and low degree.

In conclusion, the Giant Dictator dignifiedly sits back on his throne, and issues his proclamation as follows:

"I am conscious of having done my whole duty in the matter of the *post-mortem* of the remains of McCormick, and I am not therefore satisfied to have others who may feel chagrined attempt to put me in a false position."

Doctors of low degree should not have *any muss* with gentlemen who have made high science a specialty for more than twenty years. Highly scientific specialists should not evolve their ideas before men who are less scientific than themselves.

> "O wad some Pow'r the giftie gie us
> To see oursels as others see us!
> It wad free monie a blunder free us
> And foolish notion."—*Burns.*

"The editor of the LANCET AND OBSERVER of this city devotes two or three pages of his journal to a discussion of the means by which some individuals succeed in practice. Would it not be more profitable to some of his readers if he would tell them why so many fail to succeed? The fellows who succeed are already happy. They are all like ships under full sail with the pilots aboard. The editor would do a better work if he could only point out the rocks that have wrecked the sunken crafts."—*The Clinic.*

Why, now, bless your innocent soul, my dear brother, that 's just so, only you are the least bit mistaken as to those fellows who have been successful and are so extremely happy. They do n't all smile over the matter worth a nickel. One gentleman, in his most quiet and courteous manner, modestly informed our printers that an injunction would be placed on their future publication of the LANCET AND OBSERVER; that he was the person characterized in the September number of the LANCET AND OBSERVER, and that his medical friends confirmed his impressions. And yet he did not seem to be in a happy frame of mind, nor joyful that his ship was under full sail and the pilot aboard. For his comfort we are happy in being able to inform the aforesaid gentleman that he was hardly thought of at the time we wrote the aforesaid unprofitable article, and take this, our first opportunity, to apologize for so unintentionally making shoes so very small that they could not be worn, and at the same time make the wearer happy; but then we are so sorry that the wrong persons will attempt the excruciating exercise. A gentleman who lives in the interior of the State, informs us that a man of eminence who formerly resided in that section, embodies all the various characters represented. We could not but say to him, "Give the de'il his due." That individual did not deserve all that our correspondent placed to the credit of his former neighbor.

Our Jeems says, and he is truthful, that we did not tell of half the ways that some of the brethren resort to, in order to acquire that great desideratum a lucrative business. "Why," says he to me, says he, "there is Dr. X——; he is always riding a hobby."

"A what," says I. "A hobby."

"Yes," says Jeems (Jeems is an observer). "He first came out as a hydropathist."

"Now, Jeems," says I, "be careful what you say about the great and learned."

"Yes, he was a warm-water doctor; one of those fellows that treats an indiscreet class of patients whose water becomes too hot to be passed with comfort to themselves, and are in consequence obliged to carry a ten-penny nail in a convenient pocket, so that it may be placed between their molars when under the painful necessity of giving exit to an accumulation of exceedingly hot water."

"You do n't tell me so," says I.

"Yes," says Jeems. "And then he wrote it all down, what wonderful results followed his special and newly discovered mode of treating patients who were *sorely* afflicted in their procreative apparatus, thereby gaining renown as a worker in the profession, and not to be recognized as one of the common herd."

"Do be careful, Jeems, now, as to what you say."

"Yes," says he. "I read the articles like nearly everybody else, and know that 's so."

"Very well, what next?"

"Why, he did not ride that hobby very long; it did not seem to be quite respectable enough, and did n't bring in the best class of patients."

"Not after publishing his investigations?"

"No; somehow it did n't take well. Then he went into the double back-action squirt-gun business, before which the most solid and fibrous tumor vanished almost miraculously, and the places which knew them, knew them no more forever. All of which is written in the book of Chronicles."

"Yea, verily," says I. "And then what?"

"Well," says Jeems, "then he went into surgery, and performed the most remarkable operations."

"You do n't say so," says I.

"Yes, I do," says Jeems. "The results that he obtained from his exsections were astonishing."

"Shades of Mussey and Blackman, Jeems, do be careful," says I.

"The most wonderful results ever obtained."

"Why, I never heard of them," says I.

"No; they were not published, but are all found recorded in the book of Chronicles."

"Is that all?"

"No. Then he ordered a galvanic battery; one with improvements of his own invention, and that would be so powerful in the way of making thunder and lightning, that he really waited for some time expecting a direct and personal call from the Lord of all, asking in the most condescending manner for the poor privilege of applying the aforesaid improvements to His battery. The call did not come; but you would never guess what his improvement consisted of."

"No," says I, "I never was good at guessing. But, Jeems, I must insist again on your being very careful what you say about the doctor. You know—"

"Well, he put a four-horse power steam-engine in his cellar, and connected it with his battery upstairs, so that he was always sure that when there was a good head of steam on in the cellar, the battery upstairs would go; there was no necessity of depending on acids or glass wheels to generate enough lightning to satisfy the most fastidious."

"Jeems," says I, "that is all a fabrication on your part. Do you suppose that I am so verdant as to take in such stuff as you are manufacturing wholesale?"

"Doctor, I am very sorry if you do n't believe me truthful, but you will find every word of it recorded in the little book of Chronicles."

"Anything more," says I.

"No; you doubt me, and I value my reputation for veracity too much to tell you anything else about Dr. X——, but there is plenty more."

"Go on," says I.

"Well, about the time of the doctor's application of steam to his battery, he found that his business had increased to so great an extent, that he must have a man Friday to assist him in his great work of illuminating the scientific world. Friday being constantly in the shadow of the great master, must needs partake of his enthusiasm and make a grasp at the renown that was being heaped upon the immortal X——, and following closely in his foot-prints, he began to make experiments on the genital organs of the more tender sex, which not only rivaled, but for a brief period completely overshadowed the resplendent glory of his master, making the original discovery that he too possessed talents of a superior order. Friday came to the sensible conclusion of setting up in business for himself, and except for the undeniable fact that he occasionally consults with an irregular practitioner, we would admire the self-satisfied way in which he folds his arms and dignifiedly bows as he is driven by, while his broad open countenance is wreathed with smiles that are both child-like and bland."

"Jeems, how is it that so many fail in securing a business that will enable them to live in a large city, or as *The Clinic* says, 'point out some of the rocks which have wrecked the sunken crafts?'"

"Why, for the simplest reasons in the world. Young men are graduated at the various medical colleges, and on receiving their diplomas, imagine they hold a certificate duly sealed, signed, and delivered, entitling them to a free pass along the entire road to fame and fortune. They soon find to their grief that the land is wholly occupied, and that very largely by gentlemen of versatile ability, occupying professorial positions, the nooks being filled by editors and other small fry, so that they are in large numbers stranded, and after floating around for a season, are drawn into the whirlpool of oblivion.

"And then," continued Jeems, "*The Clinic* editor knows all about how it is himself. Just read this review of a late work on Electro-Therapeutics that was published in that journal August 29, 1874: 'This little book is probably as faithful a compilation as the author could well make in so limited a space with the extensive range of subject that he has given himself. The enumeration of diseases—medical, surgical, and obstetrical—claimed to be benefited by electricity is more extensive than experience will bear him out in. We have too many books of this kind. We do not mean books devoted to electricity particularly, but books written simply to make known the author by advertising a specialty. The mode of doing these things is such that practical knowledge is not at all necessary; the author surrounds himself with all of the attainable literature upon the subject in hand, then proceeds to compile. We commend the industry of these authors, but the benefits accruing from these publications are generally confined to the authors themselves, by way of advertisement. The numerous publication of books of this class adds vastly to the bulk of medical 'chaff,' and increases to an unnecessary extent the labors of the student and practitioner in their search for 'wheat.' These remarks have no special reference to the book before us, but the subject of electricity being at present popular and the fashion, it is liable to suffer from this kind of book-making.' "

"Jeems," says I, "this electricity business is powerful in its results."

"Yes. There was Dr. C—— who taught a class in G—— Street Sunday-school, whose mind would at frequent intervals run on high science. On a recent occasion he took his battery with him to illustrate the lesson, and make things interesting to the boys His was not one of those ponderous machines run by a steam-engine, but a handy little contrivance that could be carried with one hand. There was also engaged in the commendable occupation of teaching a class in the same Sunday-school a young man who was suffering from neuritis. Both he and the pastor were interested in the good doctor's illustrations with his machine, when a happy thought occurred to the parson. Why could not the doctor apply his battery to the sufferer's face, while he, being powerful in prayer, would intercede at the throne of grace for a direct blessing of the means used? And never so good an opportunity as the present. Both doctor and patient proceeded to get ready at once; the electrodes were applied; the lightning turned on, and the parson got down on his marrow-bones and agonized until he felt that the blessing had come, and his prayer answered. As he arose he gasped out: 'Brother D——, do n't you feel cured?' 'Yes,' said the brother, 'I do feel relieved.' The parson grasped his hand and told him to give the doctor and God the glory. Which—the doctor, parson, or the Lord—collected the fee, I could n't find out.

"While we are on this subject of electricity, I found written in the little book of Chronicles the following conundrum: 'Why is it that the lightning, in descending from the clouds to the earth, always takes a zigzag direction?' Thus far none of the learned gentlemen, who make high science a specialty and are familiar with the use of all the lately invented instruments of precision, have been able to answer correctly.

"Jeems," says I, "did they try the compound application used by the parson and doctor that you was just telling about?"

"Do n't believe they have. I 'll suggest it the first time I meet one of them."

The first verses of the first chapter of the little book of Chronicles read as follows:

"He who bloweth not his own horn, the same shall not be blown.

"A pound of brass is of more value than much gold, and an ounce of assurance than much fine gold.

"Love and do good unto thyself, but hate and speak evil of those who disagree with thee.

"Hide not thy talents by incumbering the sidewalk, but sit thou in a brougham or coupè; and when thou sittest in thy brougham or coupè, fold thine arms and look solemn; yea, condescend not to speak to him who trudgeth upon the sidewalk.

"When thou art called in consultation, surely thou shalt treat the attending physician as if he was thy inferior and devoid of experience in that particular class of diseases, neglecting not to advise a change in the course of treatment. Impress the patient's family with thine importance, and speak condescendingly of the attending physician.

"Thus shalt thou get great gain and much practice.

"Yea, verily, thou shalt tell it in Gath, that thou hast the largest and most profitable practice in the city where thou dost reside."

For fear that gentleman might attempt, etc., we feel called upon to imitate the boy that drew a picture on his slate and wrote under it, "This is a horse," writing under our piece, "The above is general and not special in its application."

One of the essentials to a physician's success in the treatment of disease, is that he shall be furnished with reliable and pure drugs; and we take pleasure in commending the goods of any manufacturer who deals honorably with the medical profession in this important matter. Recently, an article appeared in the *Detroit Re-*

view and American Journal of Pharmacy, giving an analysis of various samples of quinine pills, showing that there was a considerable adulteration practiced by some of the manufacturers. Some specimens, we are glad to say, were of full weight and of pure quinine.

The following extract is from a letter addressed to the prominent manufacturers, Wm. R. Warner & Co.:

"125 FORT ST. W., DETROIT, *July* 16, 1874.

"W. R. WARNER & CO.—*Gents:* In accordance with your request, I procured of your agent in this city a sample of your sugar-coated quinia pills, which I have submitted to a careful examination with the following results;

"Gross weight of (2 gr.) pill, 5.4 grs. (average of 20 pills.) The weight of single pills varied between 5.13 and 5.64 grs. The samples of five pills each yielded of alkaloid, soluble in ether, respectively, 463, 465, and 469 milligrammes. These quantities would correspond respectively to 9.52, 9.56, and 9.64 grains of crystallized sulphate of quinia. It is possible, as you suggest, that the excipient may interfere somewhat with the complete extraction of the alkaloid by ether; in any case, I consider myself justified in saying that the pills are fairly what they claim to be. While many of the pills in the market contain an inferior quality of quinine, I find *these* are made of the best material. In confirmation of the direct analysis, I estimated also the sulphuric acid contained in your pills. I ascertained. in the first place, that the pills contained no excess of acid, no mineral bases, which might be combined with a portion of the acid in question. In absence of these, I considered the results obtained in this way tolerably reliable and exact. Six of the pills, precipitated by barium chlorid., yielded in two experiments, respectively, 208 and 210 milligrammes of barium sulphate. Twelve grains of sulphate of quinia would yield a precipitate weighing about 207 milligrammes. The result was, as you see, perfectly satisfactory. The figures, indeed, are surprisingly close, considering how much the pills, individually, vary in size. It was an oversight not to have weighed the pills I used in each experiment. Possibly the quantity of quinine varies as much as the gross weight of the pills, which would admit of a range of five per cent. above and below the average. In conclusion, I take pleasure in testifying that your quinine pills are, practically, just what they claim to be, whether by analytical tests or by the therapeutic effects obtained from them.

"I must not be understood to say that yours are the *only* pills which come up approximately to the standard. I should be doing injustice to more than one reputable and really honest firm.

"Respectfully yours,

"A. B. LYONS, M. D., *Analytical Chemist.*"

It would give us no little pleasure to see published in certain religious papers the following. Let it be inserted between an editorial on temperance and the regular advertisement of Hostetter's Stomach Bitters:

The Alcoholic Strength of the Various Bitters—Mr. Henry Vaughan, State Assayer of Rhode Island, has made a chemical examination of thirty-five samples of "bitters," including all the more important ones found in the market. His report to Sheriff Holden gives the following precentages of alcohol in the various samples:

	Per Cent.
Hostetter's Stomach Bitters	43.20
Baker's Stomach Bitters	40.57
Drake's Plantation Bitters	30.24
Sol. Frank's Panacea Bitters	37.20
Mishler's Herb Bitters	36.80
Dr. R. F Hibbaw's Wild Cherry Bitters	35.89
Rush's Bitters for the Stomach's "Sake"	34.30
Dr. Fisch's Bitters	32.16
Baker's Orange Grove Bitters	25.70
Speer's Standard Wine Bitters	25.49
Traveler's Peruvian Bitters	22.40
Dr. Clarke's Sherry Wine Bitters	22.40
California Wine Bitters	18.20
Dr. Wheeler's Tonic Sherry Wine Bitters	14.66
Atwood's Quinine Tonic Bitters	40.10
Dr. Holmes' Golden Seal Bitters	34.24
Dr. Job Sweet's Strengthening Bitters	31.41
Webber's Strengthening Bitters	26.87
Flint's Quaker Bitters	22.99
Restorative Bitters	20.54
Luther's Temperance Bitters	16.68
Richardson's Bitters	59.14
Armington's Bitters	33.26
Davis' Bitters	30.50
Colton's Nervine Bitters	29.73
Dr. Warren's Bilious Bitters	29.60
Hartshorne's Bitters	27.35
Atwood's Jaundice Bitters	25.60

	Per Cent.
Puritan Bitters	25.60
Dr. Langley's Bitters	24.41
Dr. Hooffland's German Bitters	20.85
Oxygenated Bitters	19.28
Walker's Vinegar Bitters	7.50
Dr. Pierce's Bitters	6.36

—*The Laboratory.*

RIPLEY, O., *August* 18, 1874.

Editor Lancet:—How would you put up the following ℞ from a physician in Ohio, who is a graduate of one the Cincinnati medical schools:

"Com Tin Gentian 4 $\overset{\text{os}}{℥}$ *ou*
Can Tin Opium 2 *dous*
Hoffmons Anodyne 2 dou
Mix

"Resp youres
"Dr. ——.

"One taspoofull every houre
untill Releived in Cold water."

The above is a true copy. DRUGGIST.

We suppose the author of the above prescription intended it to be read as follows:

℞ Compound tincture of gentian............fl. ℥iv.
Camphorated tincture of opium...........fl. ʒij.
Spiritus ætheris compositus................fl. ʒij.

Mix, and label the bottle as directed.

There your duty as apothecary ended, whether the patient was to be placed in a bath of cold water every "houre" in order that he might take a "taspoonful" of the mixture, or whether a "taspoonful" of the mixture should be placed in the cold water until it (the mixture) or the patient was relieved, should not have given you any special anxiety, as undoubtedly more explicit directions had been given the attendants of the patient.

But my dear honest and conscientious Sir Knight of the Mortar and Pestal, the above prescription is not a circumstance to some that are presented at the counters of our city apothecaries. We give a single illustration, *verbatim et literatim*:

℞ Globule Fused Potassa Nit No 1
Sig. To be sucked a little every four hours

3

The above was written by one of the most prominent teachers of medicine in Cincinnati. Just what attenuation or infinitissimal amount the doctor expected his patient to absorb every four hours, or what magical results he expected to find at his next visit, of course are only known to the great teacher and his patient, as we were neither called in consultation nor informed by the parties most interested.

If the above and much more of the same sort are the results of the teachings of materia medica in our medical colleges, we modestly suggest that a few of the annually delivered disquisitions in that department be overhauled and to some extent transmogrified.

Attention, Subscribers!—Eyes Right and Heads Up.—Know ye by these presents, that from and after the first day of January, 1875, the LANCET AND OBSERVER will be mailed regularly to those only who pay their subscriptions in advance. Our uncle—Samuel, we refer to—says that all publishers must prepay the postage on all matter intrusted to his care, not even making an exception in favor of the publisher of the LANCET AND OBSERVER, and broadly hints that he will not give any credit to the aforesaid individuals, but require them to at once come down with the needful.

There are a number of subscribers who have not, up to this time, liquidated their indebtedness to this journal To such we must say that the bills of the journal must be paid, and as you have received the benefit of its pages, we ask you to square up your account and keep your credit good.

During the past eight months we have published in each number of the LANCET AND OBSERVER sixteen pages of Dr. T. C. Minor's monograph on "Child-bed Fever," which is now published in book form. We will not make any criticism of the work, as our subscribers already know its value as a book of reference, as it embodies nearly, if not quite, all of the literature of the profession on that subject up to the present day, with the author's deductions.

This book we offer as a premium to all new subscribers to the LANCET AND OBSERVER. The old friends of this journal can add greatly to its prosperity by availing themselves of opportunities that present of securing a new name for our subscription list. The inducements offered should be taken advantage of at once.

Cincinnati Hospital—The very Latest Modern Discovery—Unparalleled Nepotism.—Dr. Carson is third cousin to Dr. Dandridge's wife's step-mother. Go and tell *The Clinic* editor.

Reviews and Notices.

The Physiology of Man: Designed to represent the existing State of Physiological Science, as applied to the Functions of the Human Body. By AUSTIN FLINT, JR., M. D., Professor of Physiology, etc., in the Bellevue Hospital Medical College, of New York, etc. In five volumes. Vol. V., with a general index to the five volumes. New York: D. Appleton & Co., 549 and 551 Broadway, 1874.

It is with no ordinary pleasure that we announce the completion of Prof. Flint's work on physiology—the fifth and concluding volume of the series being before us. Volume I., embracing the existing state of the science in regard to the blood, circulation, and respiration, appeared in 1866, and was duly noticed in this journal. From time to time the several successive volumes have appeared, and each has met with the fullest degree of favor from the profession and the medical journals of the country.

Each volume is really a complete monograph of itself upon the several departments treated. Thus, Volume IV. was devoted exclusively to the nervous system, being the joint labor of Prof. Flint and Prof. Hammond, and for those desirous of simply making a special study of this physiological field, is entire, and brings up all that is to be wished for.

This concluding volume discusses the special senses and the subject of human generation. The first nine chapters are devoted to the "Anatomy and Physiology of the Senses," and it will be readily understood that this careful explanation implies the advances which have been made within the past years upon these topics. Take, for example, the sense of sight. The whole subject has been wonderfully revolutionized within a very recent time, and the physiology and pathology of this organ affords a new field of facts. All these are carefully incorporated in the text of our author So with the other senses, we find much of the same careful reference to the recent contributions of special investigators. The remaining part of this volume gives the accepted views of physiologists pertaining to the whole subject of generation, and here we find the same careful attention to whatever is new or worthy of permanent record.

We must not close this brief notice of so much careful work without calling attention to the fact that this series of volumes embraces very much that is original with the author. Thus, his experiments on cholesterine entitle our author to a high place in physiological inquiry; so his investigations upon the excretion of nitrogen as the result of exercise. All these original studies have been so far confirmed as to now give the peculiar views of Prof. Flint a position among the established facts of science.

The whole work, as now complete, is a great credit to the scholarship of our country, and will be accepted by students of physiology everywhere as reliable authority. We only regret that for the sake of general readers the complete work as now presented is so expensive as to place it out of the reach of the ordinary physician; and we respectfully suggest to the publishers, who have done their work so well, and the author who now rests in the completion of his work, that a new edition for general use be provided, which might be put in, say, two handsome volumes at about half the price of the present elegant set. E. B. S.

For sale by Geo. E. Stevens & Co.

The Medical Register and Directory of the United States. By SAMUEL W. BUTLER, M. D.

To collect the names of all the physicians in the United States and arrange them alphabetically according to States, with lists of medical societies, colleges, hospitals, and other medical institutions, with abstracts of medical laws of each State, with notices of mineral springs, involves a stupendous amount of labor. As we would expect, we find quite a number of errors, which will be largely corrected in future editions. It is with a feeling of regret that we find a large number of physicians have not given the editor of the work the assistance needed to make the Register perfectly correct. Many have paid no attention whatever to circulars asking for the points in their own history.

The Register is of very great value, and will be to physicians what the city directory is to the man of business—a book he can not get along very well without.

Lecture on Strain and Overstrain of the Heart. By J. M. DA COSTA, M. D., Professor of Practice of Medicine in Jefferson Medical College, Philadelphia.

This is the third Toner lecture delivered in Washington, and is confirmatory evidence from the beginning to the end that Dr. Toner, in instituting the Toner Lectures, certainly "put his money where it would do the most good."

THE CINCINNATI

LANCET AND OBSERVER.

J. C. CULBERTSON, M.D., Editor.

VOL. XVII.—NOVEMBER, 1874—No. 11.

Dr Hays

Original Communications.

Art. 1.—Reflex Action of the Nervous System.

Paper read before the Olney Medical Society, by J. BOWMAN, JR., M.D.,
Flora, Illinois.

GENTLEMEN: We often hear this term used rather vaguely by medical men in explanation of pathological phenomena. It is but one of the laws or ways of nerve action, although the most important and more of the phenomena of animal life are due to it than any other.

It is our purpose, to-day, to consider some of the physiological and pathological phenomena due to reflex action, but especially the place it should fill in the practice of therapeutics. In doing so, you will excuse me if I review some of the principles of physiology which are as familiar to you as the first four rules of arithmetic are to the mathematician.

The word *reflex* is derived from the Latin verb *refluo*, meaning a reflow. When used by physiologists, we understand it to mean that an impression being made on the afferent fibers of a sensory nerve, it is conducted to the nerve centers and a message reflected back through the motor tracts. We remember hearing rather a vivid definition which a Frenchman gave a few years ago. He imagines some whalers in a boat, after a whale. One of the men thrusts a harpoon into the whale's tail; the message is flashed to its brain--harpoon in tail; one reflected back—thrash tail *and upset boat.* This law is perhaps, of all the laws of animal life, the most important. It is by this the whole muscular and vascular systems, the most distant parts of the body, each organ with others, are held in intimate relation and perform their normal functions.

Dr. Carpenter says, muscular tension is due to reflex action, theorizing that the impression of the state of the muscles on the afferent nerve fibers is sufficient to keep up the requisite reflow of nerve force for the gaining of their moderate contraction, which is necessary for their proper nutrition. This theory, applied to those organs under the control of the vaso-motor system, will explain some peculiar phenomena. The impression of the state of each organ on its afferent nerve fibers procures the reflow of motor force for the regulation of its vascularity, thereby its nutrition and secretion. The impression conducted to the nerve centers may not merely excite a reflow of nerve force to its origin, but may be reflected to any organ or any part of the body. Thus, by these actions, the function of each organ and system is regulated, for the benefit of other organs and the whole system. We doubt not that the vicarious action of organs is due, to a certain extent, to reflex actions. Thus, we often observe the kidneys performing the functions of the liver, the intestines and skin, etc.

To the student who would in attempting to diagnose diseases (especially the neuroses), were he to reason merely from the laws which govern inorganic matter, there would appear many unaccountable phenomena. The man, in this day, who decides that at every location where there is *pain, paresis, or alteration of vascularity* the cause is at the same point, is unworthy the name of doctor. The intelligent physiologist will take into consideration the location of the cause of any symptom before he administers his remedies.

The subject is best considered under four heads, or the four kinds of reflex action:

1. *Reflex actions, taking place from the sensitive surfaces and voluntary muscles through the cerebro-spinal system and back to them again.*

The physiological phenomena from this kind of actions are always before us when every voluntary muscular movement is caused and controlled by it.

We have the pathological when there is an abnormal irritability of the cerebro-spinal system, in such cases as tetanus, chorea, poison by strychnia, etc. In tetanus we have an example of an irritant to the sensory nerves reflected through the motor tracts, while in chorea and poison by strychnia the irritation is of centric origin, with the exalted reflex activity so great that in some cases a slight impression to the sensory nerves of the surface will cause convulsions. The fact should be remembered, in such cases, that the greater the impression of resistance conducted to the centers, the greater will be the reflow of motor force.

The profession is indebted to Brown-Sequard for discovering many ways of using reflex action therapeutically: such as arresting the attacks of epilepsy by forcibly flexing one or both great toes, checking a paroxysm of coughing by expanding the nostrils, etc.—all depending on the principle of reflecting a different impression through the motor tracts.

That paralysis may also be caused by reflex action is a recognized fact; but as I have a case in mind which demonstrates this so clearly I will give you a history of it from memory. The case was that of a boy aged about fourteen years, who was brought to Cincinnati in 1870, and placed under the care of Drs. Comegys, Williams, and Ayers, at the Commercial Hospital. Some months before his admission he was struck in the left eye with a brickbat thrown by a playmate, which produced an inflammation of the globe with loss of vision. Several months after this accident paralysis of the extremities occurred. Having been treated for this some time, by the physicians of his native town, with no benefit, he was finally brought to the city and placed under the care of the above-named eminent gentlemen, who diagnosed paralysis, due to the inflamed eye, and decided on enucleation of the globe, which operation was performed with a beneficial result, a cure of the paralysis following. When we last saw him, in Dr. Comegys' clinique, he was able to walk about the arena without crutches or any other assistance.

2. The next kind of reflex actions we will consider is, when we have *reflex actions taking place through the sympathetic system from one organ to another.*

The evidence of the close sympathy between the organs of the pelvis and abdomen is abundant to you as practicing physicians.

An irritable rectum will cause an irritable bladder; and we always fear the occurrence of dysentery in pregnant women, because the irritation of the bowels being reflected to the uterus is very apt to cause expulsive efforts of the organ. The knowledge of the sympathy between the uterus and stomach is not limited to the disciples of Æsculapius; but the woman who vomits every day is looked upon by the laity as having a trouble somewhere else than in the stomach. A congested liver will produce an irritable stomach, an irritable stomach a disordered heart. The correct therapeutics of all abnormal conditions dependent on irritation reflected from other locations, is evidently to seek out and remove the cause, if possible; if not, to quiet the exalted reflex activity of the nerve centers. We have the authority of the most reliable writers for saying that an irritable uterus, the influence of which being reflected through the sympathetic system, may cause dyspepsia, constipation, functional derangement of the heart, pains in the region of the liver or spleen, and often a cough.

The irritations of the internal organs when coming under the third kind of action:

3. When we have *reflex actions taking place from the internal organs through the sympathetic and cerebro-spinal systems to the voluntary muscles and sensitive surfaces.*

May produce pain, convulsions, and alteration of the vascularity. The sympathy between the internal organs, voluntary muscles, and sensitive surfaces is very acute. Especially is there a close sympathy between the stomach and brain. The fact that the emotions were influenced by the condition of the digestive organs was recognized by the ancients. You remember Aretaeus ascribed to the stomach as its primary power, that it acted as the precedent of pleasure and disgust, from sympathy of soul, it being a close neighbor to the heart. The fact is also familiar to you.

It is not necessary to name the whole list of mental changes from the transient depression of spirits from a sour stomach to the confirmed hypochrondriac from some visceral disorder to prove it to you. Undigested food or any other irritant in the bowels may be reflected to the voluntary muscles, causing convulsions. This is more frequently the case in children, their nervous systems being more impressible to morbid influences than the adults; but such cases will occur in that of adults.

In the summer of 1873, the case of a gentleman, aged fifty-five, came under my care from the hands of another physician. He had been confined to his bed for two weeks with dysentery and intermittent fever. He was very much emaciated from frequent hæmatemesis and the daily paroxysms of fever. Arresting the hemorrhage with opiates and astringent injections, I was then directing my remedies to the febrile paroxysms; my patient doing very well until the third day after he came under my care, when he began to have slight twitchings of the muscles of the face every twenty or thirty minutes. In the course of ten hours the spasms extended to the muscles of the extremities. I placed him under the influence of the so-called antispasmodics, without any benefit except to increase the intervals between the convulsions, but not arrest them. He continued to get worse during the next twelve hours. At my next visit I found him in a comatose state, the face of a dark, congested hue; the case seeming almost hopeless. In carefully examining the abdomen (which should have been done before), I detected what I supposed to be a few hard fecal masses in the intestines. I gave him a brisk cathartic; during its operation he discharged a number of scybali. He was troubled no more with the spasms, but suffered a few days in intellect from the cerebral congestion caused by the long continuance of the convulsions. Now I can see no other cause for these convulsions than the irritation of the hard masses in the bowels; because after the operation of the cathartic he was given no more nerve sedatives except bromide of potassium in small doses, while he had been taking it in very large ones.

The fact of the nervous system having a great influence over the vascularity of the skin, and any disorder of it influencing diseases thereof, is becoming better understood by dermatologists every day. We all know that the emotions of the cerebrum influences the vascularity of the face. Those of us who have been so unfortunate as to have had many cases of cerebro-spinal fever, have been familiar with and learned to fear the appearance of those small hyperæmic patches on the skin, showing an increase of cerebral and spinal congestion. Brown-Sequard says herpes zoster is dependent on spinal irritation. There is an acute sympathy between the skin and mucous membranes. If we have any disease of one, the other is apt to be affected.

In extensive burns of the surface there is generally ulceration of the small intestines. This can only be explained by reflex action.

In those diseases classed under the head of the exanthemata, sympathy is plainly demonstrated; as in those acute eruptions of the skin there is generally a hyperæmic condition of the mucous membranes. This is not altogether due to reflex action, but certainly is partly so.

That any disorder of the alimentary canal, attacks of indigestion, constipation, also uterine mischief, make such skin diseases as acne much worse is a recognized fact; and the physician who would treat skin diseases scientifically should not give his sole attention to the mere local changes, but be especially on the alert to discover the cause of those frequent increased hyperæmic conditions of the skin due to reflex action from the internal organs.

4. And last, we have *reflex actions taking place from the sensitive surfaces, through the cerebro-spinal and sympathetic systems, to the involuntary muscles and secreting organs.*

It is by these kinds of actions that many morbid conditions of the internal organs are caused. Imprudent exposure of the integument to cold and wet, the impression of which being reflected to some of the mucous membranes, may produce nasal catarrh, pharyngitis, bronchitis, or pneumonitis; or to the intestinal canal, producing a diarrhea; or to the kidneys, causing nephritis; or being reflected to the serous membranes, may cause pleuritis or peritonitis.

Emotions of the cerebrum will affect the functions of the heart; may also disturb the process of digestion.

Cases of disagreeable sights or odors, exciting events, hastening or arresting the menstrual discharge, or inducing premature delivery, are not uncommon.

By reflex actions, coming under the fourth head, we are perhaps able to give more therapeutical aid than others. Anatomically and physiologically the skin and mucous membranes are very much alike; and, as we before stated, there is an acute nervous sympathy between them, any impression made on one being reflected to the other. It being comparatively difficult to reach the mucous membranes, and often, when the question of time is of the greatest importance, we employ this reflex action from the surface to the mucous membranes, as in hemorrhages from the internal cavities. It is perhaps by this law that the counter-irritants act so beneficially. We generally make impressions to the surface by cold or heat. In making cold applications, we find the minds of the people and often of medical men imbued with the ideas that it will give the patient cold, it will drive the disease in, etc.

These notions are derived from the laws of inorganic matter, and should find no place in the minds of the intelligent. If it be true that the blood be drawn to and from the surface at will, how then do cold applications to the surface prove so successful in checking hemorrhage from the internal cavities? When we remember that hemorrhage generally takes place from the mucous membranes, we can understand that the beneficial result is gained by the exciting and constringing influence being reflected through the vaso-motor system to the capillary net-work of the mucous membranes.

Dr. Armor, in the December number, 1873, of the *New York Medical Record*, says: "By means of the sudden alternations of heat and cold, the extensive net-work of the cutaneous sensory nerves is brought into relation with the vaso-motor nutritive and secretory systems, thereby relieving passive congestions and improving nutrition."

Brown-Sequard says, in some carefully conducted experiments he discovered that dipping one hand in water at the freezing-point would produce considerable contraction of the blood-vessels in the other. He says, from this fact he has been in the habit of alternately applying cold and heat in the treatment of spinal affections, with the view of producing contraction of the blood-vessels of the cord, and with benefit.

Some writers say, that a congested liver or spleen will rapidly diminish under the application of the cold douche.

Dr. John Chapman, in 1873, claimed to have discovered that a controlling power over the circulation of the blood in the brain, in the spinal cord, in the ganglia of the sympathetic system, and through their agency, in all the organs of the body, can be exerted by means of applying ice and hot water to different parts of the back.

The belief is now gaining ground, that benefit may be derived from the use of cold applications in the treatment of the acute inflammations of serous membranes. Some prefer the use of heat instead, although such high authorities as Neimeyer, Currie, and Fox have recommended the use of the former.

In such diseases as pneumonia and peritonitis, where there is a tendency to failure of the heart's action, it is well to be cautious in the application of cold, without the administration of stimulants, not that the impression to the surface drives the blood into the heart, but that the excitant influence, being reflected to the vaso-motor systems, produces a contraction of the walls of the capillaries, causing an increased resistance to the heart's action. We have an indication to use this kind of reflex action to a therapeutic advantage in the collapse of fevers. In those cases, where the temperature has fallen suddenly, the skin is covered with a cold, clammy sweat; the heart contracts feebly--it has no longer the power to propel the blood through the skin; the arterial tension is lost; the lungs seem paralyzed, and there is a relaxation of the walls of the capillaries, permitting lung and viscera engorgement. This is all due to a want of nerve force in the vaso-motor systems—a paresis or stupor of those nerve-centers which preside over the circulation, and thereby the production of heat. Evidently, the indications would be, in such cases, to arouse those centers, which result could be gained by some sudden and excitant impression to the sensory nerves of the surface; perhaps the best manner being the cold douche. Those who have had large experience in treating cases by this method, say the result is often marvelous from the cold douche. The patient, lying in a profound stupor, is suddenly aroused by the shock; he draws a long breath; the ataxy of the heart disappears; the arterial tension is regained; the pulse becomes fuller and stronger, and the engorgement of the thoracic viscera is relieved. We have seen a few cases treated in this manner, in our own experiencé, the result proving eminently satisfactory.

We may use this kind of reflex action beneficially, also, in those cases where there is general debility dependent on the want of normal nerve action. In habitual constipation, dependent on a partial paresis of the muscular coats of the bowels, menstrual disorders, and passive congestion of the chylopoietic viscera, by the use of the local shower and transition bath.

Art. 2.—Two Cases in Surgery.

Reported by Dr. E. T. COMEGYS, A.M., M.D., Cincinnati, Ohio.

CASE I.—*Railroad injury; gangrene of hand; amputation of forearm; recovery.*—Jas. McD., æt. 63; Ireland; brakeman. On the 1st of October, 1873, while coupling cars, his right hand was crushed between them, causing, on the dorsal surface, a lacerated wound extending along all the metacarpo-phalangeal articulations (which were exposed), the soft parts being stripped from the bones down to the carpo-metacarpal articulation; on the palmar surface, a lacerated wound, across the hand, half-way between the wrist and fingers (the soft parts here also being stripped from the bones both ways; *i. e.*, toward the wrist and fingers), around the metacarpal phalangeal articulation of the thumb, and down the back of the thumb to the wrist. The first phalangeal bone of the thumb was dislocated and comminuted. The hand was cold and devoid of feeling. The forearm was badly contused, and exhibited, on the ulnar side, a punctured wound extending entirely through its thickness. The patient refusing his consent to an amputation, the hand was simply dressed and laid on a straight splint. On the morning of the 3d, I found the thumb gangrenous and removed it, the patient refusing to allow anything more done. The next day, the whole hand was found to be in a state of gangrene, and was treated with a fermenting poultice. Five days afterward, the line of demarkation having formed, I amputated the arm, about two inches above the wrist-joint. December 8th, discharged, well.

Remarks.—There was in this case, excessive suppuration, the lower half of the dorsal part of the forearm, at one time, being so sodden with pus that I began to fear it would slough off, but he finally recovered with a very good stump. Between a half and a quarter of an inch of both flaps sloughed off, leaving the ends of the bone exposed; but they were afterward covered by granulations and the cicatrix. The recovery, on account of the age of the patient and the excessive suppuration, was slow; and it was necessary to sustain him, from the first, with the most liberal diet and free stimulation.

CASE II.—*Fracture of leg, ununited after six months' treatment; resection; failure; amputation; recovery.*—J. R., æt. 23; American; brakeman. Was brought to this city and placed under my charge, in January, 1874, with the following previous history: On the 29th of July, 1873, he fell under a car, the wheels of which passed over his left leg about three inches above the ankle, producing a compound fracture of the fibula, a compound comminuted fracture of the tibia, and a rupture of the anterior tibial artery. Both bones of the right leg were also fractured. The left leg was put up in a fracture box and treated by that method. On the 29th of December, of the same year, a piece of necrosed tibia, two inches long, was removed.

On the 8th of January, 1874, when I first saw him, I found the left leg very much swollen and œdematous, the fibula apparently united, but the tibia evidently not, and a recent wound where the necrosed bone had been removed. Along the line where the car-wheels had passed, there was a great deal of exuberant cicatrix (it being raised about an inch above the level of the leg), and masses of adventitious tissue were scattered all around this cicatrix. There was partial anchylosis of the ankle. Several cicatrices of bed-sores were found on the leg and foot, and the leg was two and a half inches shorter than the other. The fractures of the right leg had firmly united. The patient was enemic and altogether run down in general health. The leg was removed from the fracture box and bandaged.

The pressure exercised by the bandage soon caused the disappearance of the œdema and of the adventitious tissue. In consultation, an amputation was proposed, on account of the general condition of the patient, the unhealthy condition of the soft parts around the points of fracture, and the almost certain existence of a false joint around the ununited ends of the tibia. The patient refused to consent to that, and a resection was determined upon.

February 3d. Resection made to-day. On cutting down to the bones, I found a false joint (with an inter-articular cartilage) at the ununited tibial fracture. The cartilage was removed and the ends of the tibia thoroughly scraped. The fibula was united, the upper fragment having formed firm, bony union with the lower one, just above the ankle-joint, and the lower fragment lay on the outside of the upper one, and parallel to it for about two and a half inches, not uniting with it, however, except at the point mentioned above. This ununited portion of the fibula was removed with the chain saw and bone forceps. The leg was again put in the fracture box; and, after the first two or three days, both wounds were treated with a solution of potass. permangan. grs ij to aquæ ℥j. There was a good deal of sloughing in the fibular side, but both wounds filled up and cicatrized in about four weeks.

The resection failed, however, and, on the 22d of April, I amputated the leg at the junction of the upper and middle thirds by Esmarch's bloodless method. Two days afterward erysipelas developed in the leg (but not in the stump, the inflammation never being nearer than an inch from the edge of it), which was treated internally with quinine and iron, and locally with ice-bags applied along the leg. No abscesses formed in the leg. June 1st, discharged, well.

Examination of the leg, after it was removed, revealed a false joint at the point of fracture of tibia, and firm, bony union of fibula at point mentioned above. Both bones of the leg and all the bones of the foot were so rarefied that they could easily be cut with a scalpel. There was commencing osteomyelitis of tibia and fibula, and anchylosis of the ankle, partly bony and partly fibrous. The condition of the bones fully justified the amputation.

There was healthy suppuration in the stump throughout, even during the attack of erysipelas; and at no time did the patient complain of any sense of discomfort from the ice, although it was applied continuously for seven days. I do not know whether ice has ever been used before, as a local application in erysipelas, but I shall certainly give it a more extended trial.

Art. 3.—Yellow Fever.

As treated by Dr. BAKER, Brunswick, Ga.

On the 14th of August, the American ship Wm. Wilcox, from Havana, put into Do Boy Sound, in distress, with yellow fever on board, the captain and first officer having died at sea, and all hands sick. Dr. Baker, port physician at Darien, ordered the vessel into quarantine, and had the men removed to Wolf Island, where a temporary hospital was constructed. The following are the doctor's notes:

Thomas Conley, stewart, taken sick August 24th. A slight chill, lasting about an hour, followed by severe pain in the back, knees, legs, and head; complains that his head will burst open if he opens his eyes; burning, hot, and dry skin; pulse 120, and bounding; respiration hurried; face very much flushed; eyes red and watery; tongue moist, and covered with a heavy coat of a dirty brown color; slight nausea—more of an uneasiness in the stomach; no pain, on pressure, in any part of the abdomen. Patient much alarmed and groaning, begging for ice; urine light colored. Bowels had been acted on by epsom salts, which he had taken; actions black and tarry. Gave emetic. Vomited large quantity of frothy water. Poured bucketfuls of water over his head, from a height, until he complained of feeling faint and chilly; bathed feet and legs in a hot mustard bath; put to bed; gave calomel and quinine, of each twenty grains; ordered three ounces of castor oil in three hours; gave instruction to repeat the quinine in morning.

August 25. Pulse 80; skin hot and dry; thirst great; tongue heavily coated; urine partially suppressed, high colored, and muddy, which alarms him much; headache better; little nausea; no appetite; back and lower extremities very painful. Ordered cloths, wrung out of hot water, to be applied above pubes. One and a half ounces spirits of nitre every half hour, quinine in ten-grain doses every four hours, and hydro-chloral to be given in case of restlessness.

August 26. Skin hot and moist; pulse 76 and full; thirst great; passes urine freely, but still red and muddy; bowels acted on once, actions black; patient very indifferent about his condition; don't care to answer questions—saying, frequently, "I want to die and be buried." Gave twenty grains of calomel, to be followed, in three hours, with two ounces fluid extract of sennæ every hour until free actions are produced. Continued quinine, ten grains, three times a day; mustard to extremities; iced lime-juice for drink; oatmeal gruel for nourishment; iced towel over head; at night twenty grains chloral.

August 28. Patient says he is better. Drank a cup of gruel. Urine free; pain less in back; head easier; bowels acted on freely, actions black; pulse 60; slept well last night; has strong hopes of recovery; face very red, redness disappearing on pressure, leaving a white spot for a long time after removal of pressure; tongue clean on edges, but black down center; vomited a frothy mixture with blood, which alarmed him; mustard over stomach; hot foot-bath; swallowed pellets of ice. Acet. plumbi, ʒj; tr. opii, ʒj; aquæ cinnam., aquæ, *aa* ℥ij: a teaspoonful every two hours until blood ceases. Continue quinine, ten grains twice a day; chloral at night.

August 30. Free from fever; skin normal; pulse 70; urine free, but still red; brown blood discharges from bowels; pain over bowels on pressure; no thirst; slight pain in back; head clear; appetite good; tongue clean; redness of face fading; very weak; conjunctiva very yellow. Dover's powders, gr. xl; bitart. potass. ʒiij, div. in pulv. vi: one every fourth hour. Continue quinine, with half grain pulv. caprici to each dose, together with mur. tr. ferri, gtt. 30, three times a day. Toast and tea; beef soup; port wine.

August 31. Well.

Art. 4—Cerebral Amaurosis, and its Connection with Diseases of the Kidneys.

Read before the Ohio State Medical Society, June 16, 1874, by J. H. BUCKNER, M.D., Cincinnati, O.

The general and indefinite application of the term amaurosis to all cases of loss of vision, due to intra-ocular diseases situated posterior to the lens, has been, since the able lectures of Von Graefe, published in 1865, in a great measure corrected. There remains, however, some confusion as to its true definition, owing to the different limits assigned to it by various writers.

Among the older authors the term was used indiscriminately to signify partial or total loss of sight from causes not visible to the unaided eye of the oculist, or, as it has been facetiously described, "A disease in which neither the patient nor the physician could see anything." The invention of the ophthalmoscope revolutionized this as well as many other false theories in ophthalmology. The eye specialist, who is expert in the use of the ophthalmoscope can now generally localize the seat of disease.

Recent writers have, however, differed in regard to the expediency of confining the term amaurosis to the narrow limits assigned to it by Von Graefe. The latter excluded from the terms amblyopia and amaurosis "all disturbances of sight dependent upon material, perceptible changes in the refractive media in the internal tunics of the eye or neuro-retinitis, and embolism of the central artery of the retina" (Wells). Mr. Solberg Wells doubts the propriety of excluding from this group neuro-retinitis, as it is generally due to intracranial disease.

Mr. J. Z. Lawrence, in his Hand-book of Ophthalmic Surgery, gives a much wider significance to the term amaurosis. He proposes to divide amaurotic affections into two classes: 1. Those, the causes of which can be diagnosed by the ophthalmoscope; and 2. Those, the cause of which can not. Under the former head he includes changes in the vitreous humor, in the choroid, in the retina, and optic papilla. Under the head of changes which can not be recognized by the ophthalmoscope, he mentions paralysis of the retina, loss of blood, pregnancy, epilepsy, hemorrhage, effusions and tumors of the optic nerve, of the orbit, and of the parts within the cranium.

Stellwag uses amblyopia and amaurosis to signify those affections which are characterized by certain organic changes in the optic nerve and retina.

Macnamara says: "We need seldom employ expressions so inconclusive and vague at the present day; but be able, in almost every case, to assign a definite cause for the impairment or loss of vision which our patient may be suffering." *

It is, no doubt, desirable to avoid vagueness in description; but the term amaurosis has been, and is still, employed by all standard authors upon ophthalmology, and can not now be easily discarded. In order to cover the signification by which it is understood by the general profession, and, at the same time, to give some definite limit to its meaning, I propose the following definitions for amblyopia and amaurosis, viz: Partial or complete blindness, the result of changes situated primarily either in the retina, optic nerve, or brain. This would include: 1. All those affections which usually terminate in atrophy of the optic disc, and in which the ophthalmoscopic symptoms are well marked; 2. Those which are amenable to treatment, but whose exact primary nervous origin may be a debatable question, and in which the ophthalmoscopic symptoms are either negative or unsatisfactory.

To the first would be assigned intercranial affections, optic neuritis, retinitis pigmentosa, syphilitic retinitis, nephritic retinitis, retinitis apoplectica, embolism of the central artery of the retina; to the second, amblyopia, the result of the excessive use of tobacco and alcohol, and amaurosis, the result of suppressed menstruation, pregnancy, hemorrhage, lactation, blood poisoning, and mental shock or emotion. It would be expected that in every instance, when possible, that the special cause of the amaurosis should be stated.

Cerebral Amaurosis.—Among the causes of this affection we may mention meningitis, acute and chronic; brain tumors of every kind, hemorrhagic and serous effusions, abscess and softening of the brain, spinal disease, blood poisoning, mental excitement, and shock. Of the remote causes may be classed epilepsy, typhoid and typhus fevers, and, in brief, any and all diseases which may produce brain disturbance.

"The ophthalmoscopic symptoms of cerebral amaurosis are optic neuritis and atrophy of the optic nerve. The ophthalmoscopic appearances, in optic neuritis, are a swollen and enlarged optic papilla, the opacity of the disc being dense and markedly striated.

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* Diseases of the Eye. Macnamara, p. 459.

The retinal veins are usually enlarged and tortuous, the arteries diminished in size and often hidden by exudation." (Wells.)

In the commencement, however, the changes are not always so well marked, and would be difficult to discern, except by those who have made ophthalmoscopy a special study. Atrophy of the optic nerve, by which it is gradually changed into a cord of cellular tissue (ligamentous degeneration), is apparently a common cause of extreme amblyopia or complete amaurosis. It appears either as an independent disease (progressive atrophy), or more often as the last phase of many morbid changes, of various seat and character, affecting the globe of the orbit, the meninges, the cerebrum, the cerebellum, the spinal cord, etc.

The characteristic ophthalmoscopic appearances are beautifully shown by Liebreich's atlas, plate 11, figs. 8–10. The papilla, at the commencement of the disease, is bright and sharply defined, the scleral margin somewhat broader and clearer than in the normal state; the proper nerve boundary distinct; the ordinary admixture of reddish gray is superseded by a white, sometimes bluish color; the net-work of the lamina cribrosa appears thickened; the darker and wrinkled interspaces of its meshes gradually disappear, and the whole surface assumes a uniform tendinous luster, sometimes exhibiting a play of greenish or bluish tints, more often resembling silver or mother of pearl.

The Vessels.—With the progress of the disease the small arterial trunks vanish completely, and the larger become smaller and paler, and, in old cases, are converted into fine white lines, without wholly disappearing. The veins undergo the same changes as the arteries, but later in point of time, and even in advanced cases are still visible, although somewhat less clear and less winding than usual." (Zander.)

Von Ammon states that, "Atrophy of the optic nerves depends frequently upon fatty degeneration of the fibrillæ and of their neurilemma; or upon defective nutrition, caused by compression of the capillaries, by exudations within the sheath, or by their impermeability from other pathological conditions. In all stages of the development of the disease all exudations are formed within the sheath, separating its inner surface from the trunk of the nerve. It is remarkable how much the sheath may be dilated by such effusions, and how great may be the disproportion between the actual nerve and its distended covering; the latter no longer closely envelopes the former, but is widely distant from it, and the ample space between them is filled up by effused fluid. The nerve itself dwindles more and more, and undergoes a great variety of modifications."

It is proper for me to state here, that since Von Ammon wrote upon this subject more recent investigators have discovered that the optic nerve has two sheaths—an outer and inner one.

Donders describes the sheath as a "*double fibrous sheath*"—an external and thicker one, which is continued into the most external part of the sclerotic; and an internal one, which envelops the trunk as far as the choroides, assisting to form the lamina cribrosa. Between the two fibrous sheaths is a net-work of sharply defined fasciculi, which he calls the *connective tissue sheath*.*

The ophthalmoscopic appearances, in commencing atrophy of the optic disc, are not always as distinct as has been above described, even in complete blindness. As an illustration of this, I have transcribed from my notes a case of cerebral amaurosis, the result of meningitis.

In July, 1869, L. S. came, with her father, to our office. Age nine years; scrofulous lymphatic temperament; tonsils large; eyes prominent; head large; features quite handsome, and unusually developed for her age. Her manners were composed, and, except in stature, she had the appearance and air of a young lady of seventeen or eighteen years. The eyes were bright, of a bluish gray in color, and externally presented no evidence of the terrible calamity with which she was afflicted. She was almost totally blind, having only a bare perception of strong light.

History.—In February, 1869, she was caught in the rain, on her return from school, and got very wet. She was attacked, shortly after reaching home, with a severe pain in the elbow; this was followed by high fever, pain in the back, shoulders, and back part of the head. Her father stated that the family physician reported brain fever, with marked symptoms of cerebro-spinal meningitis. One week from the commencement of the attack her vision became quite dim. Subsequently her father consulted an oculist, who made an ophthalmoscopic examination, but was unable to discover satisfactory evidence of change in the normal aspect of the fundus to account for the diminution of vision. She was confined to her bed for two months. The sight grew worse rapidly, and after convalescence from fever she could not distinguish large objects.

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* Donders upon Refraction and Accommodation. English edition, p. 375.

An examination of her eyes was made by Dr. Taliaferro and myself. The optic disc presented a slightly swollen appearance, and the veins were somewhat enlarged; but, with this exception, there was no marked change in the details of the fundus. She had been placed upon a derivative course of treatment by her previous physicians. We exhausted the usual remedies in such cases—alteratives; tonics of strychnia, iron, and quinine; blisters, electricity, etc., without avail. She remained under our treatment for a few months, and was then placed in a blind asylum to be educated.

During the last summer (1873), her father brought L. to see me again. He still clung to the hope of restoration to sight. I examined her eyes with the ophthalmoscope. Although her vision—a bare perception of strong light—remained the same, a marked change had taken place in the three or four years in the fundus. Both optic discs were atrophied, of pale bluish tint. The arteries were exceedingly small; the retina was atrophied and filled with patches of pigment. Her vision is, of course, forever destroyed.

All the causes of meningitis may be regarded as causes of amaurosis. Thus tuberculosis, scrofula, rheumatism, pyemia, typhus fever, puerperal fever, epilepsy, etc., may each terminate or give rise to meningitis, which may lead to cerebral amaurosis.

"Diseases of the spinal cord, more especially chronic myelitis and locomotor ataxy, may cause amaurosis by progressive atrophy of the optic nerves. In locomotor ataxy it does not generally make its appearance until a late period of the disease of the spine, long after the impairment of the mobility and sensibility of the lower limbs and the paralytic affections of the muscles of the eye, the latter being often the *first symptoms* of spinal disease."*

Solberg Wells says the affection of the optic nerves, in disease of the spine, is probably due to a lesion of the great sympathetic, through its communication with the anterior roots of the spinal nerves.

Some months since I was invited by my friend and former pupil, Dr. R., to visit a case under his treatment for locomotor ataxia. The man had but little vision in either eye. He had also alternate convergent strabismus. An ophthalmoscopic examination revealed polar cataract of both eyes. It was possible to see the fundus, although its details were not well defined. I discovered, however, a bluish optic disc. Atrophy had probably preceded the opacity in the posterior capsule of the lens. This form of opacity frequently accompanies other deep-seated affections of the eye. We are, therefore, careful to examine for symptoms of other diseases before considering the result of an operation in this form of cataract.

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* Wells.

We have already stated that all kinds of brain tumors may produce partial or complete loss of sight, either by direct implication of the optic nerves, or by interfering with their proper nutrition by pressure. We are sometimes able to judge of the locality of the brain lesion by a careful examination of the field of vision. "If the temporal half of each field is impaired, the crossed fasciculi of the nerves are involved, and the seat of the disease is at the commissure." In such cases, the impairment of vision is often very rapid, the sight being utterly destroyed in a few days. The contraction of the visual field begins at the periphery of the temporal side, and extends up to, or beyond, the center; so that, finally, only a slight glimmer of light may be left at the nasal side. If, however, the pressure is upon the right optic nerve, on the central side of the commissure, the right half of each retina will be impaired, and consequently the left half of each field of vision be wanting. If the compression is situated upon the tract of either nerve, after the crossing of the fibers in the commissure, the corresponding eye is affected.

"When the right half of each field is wanting (equilateral hemiopia), the prognosis will be more favorable than when impairment of the temporal half has taken place." (S. Wells.)

An abscess, situated in the tract of either optic nerve, or in the optic thalamus, will have the same effect upon vision as tumors; but in such case loss of vision may be intermittent, which is not likely to be the case with solid tumors.

In the spring of 1871, I had under my treatment an eminent lawyer of Cincinnati. Hemiplegia ensued upon a convulsion apoplectic in character. He complained of a loss of vision a short time after his restoration to consciousness. Paralysis of the extremities was relieved, but slight paralysis of one side of the face continued. His sight was restored upon the abatement of the paralysis, and he read the newspaper without difficulty. From this time until his death he had two or three convulsions, at intervals of one or two weeks. Each attack was preceded and followed by temporary loss of vision. His pupils, which were ordinarily exceedingly small, were, during impairment of vision, irregular and slightly dilated.

A few days previous to his death, paralysis of the left side became confirmed. His sight, although variable, was much impaired. Condition did not, at the time, seem favorable for a careful ophthalmoscopic examination. I have, however, since greatly regretted that I did not make the attempt. The autopsy, made by Drs. Carson and Dandridge, revealed, in addition to other brain lesions, a softening of the brain tissue of the right optic thalamus. The broken-down condition of tissue presented the appearance of an abscess. In this case, however, I am not prepared to say positively that the temporary loss of sight may not have been due to cerebral hemorrhage. The latter is sometimes the cause of sudden amaurosis, which may be partial and temporary, or complete. Senile softening may also cause amaurosis, by the extension of the atrophic changes to the optic nerves.

Cerebral amaurosis frequently attends insanity. Dr. Allbutt, in a paper read before the Royal Medical and Chirurgical Society of London, 1868, reports, "That in general paralysis of the insane, atrophy of the optic nerve is constantly found, and is commonly accompanied by atrophy of the olfactory nerves. It is not distinctly seen until the end of the first stage, as it slowly travels down from the optic centers; and it is in relation with the state of the pupil, which is contracted in the early stage and dilated in the fatty atrophied stage."

Mr. Wells mentions, that in idiots atrophy of the optic nerves are of frequent occurrence. Out of twelve cases it was found of a marked character in five.

It has been previously stated, in this paper, that mental emotions, when very intense, are liable to cause amaurosis. Mr. Brudenell Carter, F.R.C.S., in his appendix to Zander's work upon the ophthalmoscope, furnishes a striking example of the effect which sudden emotion may exercise upon vision: "When the Turkish expedition, under the command of Koord Ahmed Pasha, were taking possession of the Jabel, a mountain district to the southwest of Tripoli, Hadj-Goonus, one of the pasha's agents, was ordered to exact tribute from a certain tribe of marabouts, whose sole occupation consisted in affording gratuitous hospitality to the wayfarer and charity to the poor; and who, on this score, had ever before been exempt from taxation. The sheik of these good people refused to acknowledge the tax, and pleaded that their revenue being solely disbursed for the benefit of the needy, the property was held sacred and could not be taxed. Hadj-Goonus persisted in his demand, got very angry, and even threatened to use violence on the sheik if he refused any longer to pay. Upon which the venerable old man rose from his seat, outstretched his arm toward Hadj-Goonus, and, while retiring from his presence, spoke these words: 'Since you insist in carrying out your evil design upon the funds of the poor, may the Almighty curse you with blindness.' These words were hardly uttered when I observed (for I was present), Hadj-Goonus suddenly place his hand upon his head, and moan aloud from the intense pain he felt there. This was not all; for he had become totally blind." Mr. Carter also states that he did what he could to relieve his sufferings, but to no purpose. "He quitted the camp, and I heard that he died, a short time afterward, at his own home, suffering greatly all the while."

The limits of this paper will not permit me to consider the influence which tobacco and alcohol may exercise upon the brain as a cause of amaurosis—the actual pathology, as well as the seat of the primary impression from amaurosis from these causes, being still matters of dispute.

I had, some three years since, an interesting case of intermittent glaucoma, in an inveterate smoker of tobacco. Impressed with the views of Wadsworth in regard to atrophy of the optic nerve, I strongly urged the danger of total loss of vision, and prohibited the use of tobacco entirely. The patient took my advice, left off the use of the seductive weed, the inflammatory condition quickly subsided, and his vision improved so much that I did not insist upon iridectomy. His resolution was, however, of short date, and he again commenced smoking. Ashamed to acknowledge his weakness, he concluded to visit Cleveland for advice. He was subsequently operated upon for iridectomy. His vision was not improved, but continued to grow worse until he became totally blind in the affected eye. I have not had the opportunity of an ophthalmoscopic examination, but I have no doubt that there has been atrophy of the optic nerve in his case.

In regard to the prognosis in cerebral amaurosis, we must be guided by the condition of the field of vision, together with a history of all the symptoms, which may enable us to determine the character and exact locality of the brain trouble. If, however, the disease has been slow but persistently progressive, the prognosis is bad.

If, with great impairment of sight, the ophthalmoscope reveals white atrophy of the optic disc, treatment will avail but little, if anything—complete amaurosis may be anticipated.

In regard to the connection between kidney disease and cerebral amaurosis I will say, briefly, that in limiting this subject to cerebral amaurosis, we must exclude the consideration of retinitis albuminurica or Bright's disease, except in those cases in which brain symptoms may precede the loss of vision. Bright's disease may be the cause of meningitis, and thus be a remote cause, through the brain, of amaurosis. In fact, all serious affections of the kidneys are more or less attended by brain symptoms; and whether these symptoms are the result of pathological change upon the brain tissue, or the result of blood poisoning—*i. e.*, the retention of urea in the blood and the toxic effect upon the nervous centers—whenever amaurosis follows such brain disturbances it should be classed as cerebral. The ophthalmoscopic symptoms, in the beginning, are those of optic neuritis, which may assume the characteristic appearance shown by Liebrich's atlas in retinitis albuminurica, or they may be at first of a negative character—the final termination is atrophy of the optic nerves. Amblyopia, from uremic poisoning, may however yield to treatment, if the cause can be removed.

Paralysis Agitans (*The Dublin Medical Journal*, July, 1874).—Mr. Rankin reports a case of paralysis agitans, occurring in a man aged 72, by occupation a carpenter, who had first been affected with bronchitis, and then complained of great and increasing tremor in both hands and arms. This lasted for some time, so that he could not even lift a cup of water to his mouth. Tonics were tried, and improved the general health, but had no effect on the shaking. Hypodermic injections were then commenced, of five minims of a solution of equal parts of water and the liquor arsenicalis, and were given every second day. After the third injection the patient was able to lift a tumblerful of water to his mouth, and could close both his hands without tremor. He complained, after the second injection, of tenderness in the conjunctiva of both eyes, showing that the arsenic was beginning rapidly to take effect. He was soon able to resume his ordinary work.—*Philadelphia Medical Times.*

Hospital Reports.

NOTES OF CLINICAL LECTURES DELIVERED IN THE CINCINNATI HOSPITAL.

LESION OF THE SPINAL CORD, PROBABLY FROM HEMORRHAGE FOLLOWING A BLOW.

By C. G. COMEGYS, M.D., Lecturer on Clinical Medicine. Reported by PHILIP ZENNER, Resident Physician.

I have brought this patient before you, with the double object of showing you the general method of making a diagnosis, and of making it in this particular case.

The man is 35 years of age, and of average size. The face is somewhat pale, due to an anemic condition, but the expression is good; there is nothing in it indicating an exhausting malady. The man's general appearance is in accordance with his countenance. His limbs and body are well developed, his breathing is full and symmetrical, and nothing is observed which would draw your attention to any particular disease.

I call your attention to this method of general inspection, because you will often observe something that will guide you in your further examinations. But if you are not careful, you may also be misled; for you may allow yourself to jump at a conclusion—to presuppose some diagnosis from a few symptoms observed, and, with your mind thus preoccupied, may entirely overlook the real trouble.

In investigating a case you must try to avoid a mental preoccupation. You must remember that a diagnosis, like the solution of a geometrical problem, is drawn from a series of propositions founded upon the particulars of the clinical history.

But to the case. As we observe nothing, on a general inspection, to lead to any particular line of investigation, we will try to get further knowledge by questioning the patient. We ask him what he complains of, and he tells us that he has no feeling in his genitalia and legs, and that he has no control over the bladder or rectum. This answer immediately suggests some disease of the nervous system, and leads us to examine more particularly into the condition of its functions.

I ask the patient to grasp my hand, to move his arms and fingers, and he in no way manifests any loss of muscular power, or of sensibility in those parts. We now turn our attention to the inferior extremities. I ask him to move one leg over the other. You see how he does it. Each leg, separately, is raised and moved over the other, though with some difficulty as regards the left one; but while raised they are in a state of violent trembling. So the power of motion of the limbs is somewhat impaired and perverted. We now test the sensibility. I touch him and he says he does not feel it. I drive a pin one half inch into his leg, and he realizes no pain. He has both anæsthesia and analgesia.

Malingerers will often feign a condition of anæsthesia, and you must be on your guard against that. But our patient is no fraud. While I have been speaking to him my assistant, unseen by him, has been pricking him with a pin, and there has been no expression of countenance or any movement to indicate that he was at all aware of that fact. Furthermore the patient, at one time, in the wards, actually pinned his penis to his pantaloons, and only discovered the fact afterward.

The patient has stated to you that he has no control over the bladder and rectum; but this is not altogether true. He does not pass either feces or urine in bed; he is able to retain them, but when he passes them has no sensation of it. He has, however, a vague sense of a desire to urinate or defecate; but, further than that, has no sensation in that respect.

The sphincters of the bladder and rectum are weak, but still act; but the canals through which the dejections pass have lost their sensibility.

We have so far noticed this loss of sensibility in the inferior extremities and genitalia, but it has its limit. We can trace it to a wavy horizontal line, two inches or more below the crest of the ileum, but above this the sensibility is intact.

From the symptoms manifested, you see the predominance of sensory lesion. There is also some paralysis of motion, but the sensory paralysis is complete. I wish you to remember this fact, as we will draw important conclusions from it hereafter.

We now test for reflex action, by titillating the soles of the feet; but it is extinct. On applying the Faradic current to paralyzed limbs, you observe that the electro-muscular contractility is good; and from his statement we learn that there is some electro-sensibility.

I will now ask him to get out of bed, which you see he can do unassisted, but with irregular efforts; at the same time there is no spinal pain; also, that he can walk in a stiff way, bringing down his feet flat to the floor with a thump, and keeping them some distance apart. He soon tires of the effort. He says that he can not feel himself on the floor—that he has sense when moving as if swimming in water. I bandage his eyes; now he can not walk at all, or even stand a moment. I give him two canes, and he can now walk with closed eyes. With his eyes open, he walks by aid of sight; with the canes, and eyes bandaged, he walks by the guidance of the muscular sense of his arms. In this way he knows his position on the floor. His locomotory movements in this case are intellectual. All of our voluntary movements, mental as well as physical, must have a guiding sense.

I have now presented you with the leading symptoms of the case. We have here a complex problem to solve: 1. What organ is affected? 2. Where is the lesion situated in it? 3. What is the nature of the lesion?

The first question is easily answered. It is evident the spinal cord is affected, because impressions on the legs are not felt at all. It is not necessary in your presence to enter fully into the anatomy and physiology of the spinal cord. But some of the leading facts I will remind you of. You know it is composed of gray and white matter—the gray matter being in the center, the white matter forming the anterior and posterior columns. As a general statement, the fibers of the anterior columns subserve motor functions exclusively, while the posterior columns conduct sensory impressions. This latter is rather an old statement; later researches seem to make the gray matter of the posterior half of the cord the chief line of conduction for sensory impressions. Certain it is that sensory impressions are felt, when the posterior columns are cut away and only the gray matter is left intact.

For a further knowledge of this case, I must remind you of the nerve fibers which issue from the anterior and posterior portion of the spinal cord—the posterior being sensory, the anterior motor in character. Any inordinate excitement of the anterior fibers produces spasmodic action of the muscles supplied by them, and depending upon the amount of interruption of their function, will be a greater or less loss of motive power in the same parts. The conduction of impressions is only one way in these fibers, from within outward. But in regard to the sensory nerves, impressions made upon them are felt not only at the point of impingement, but are reflected also to the whole peripheral distribution of the nerves, so that they may be said to conduct in two ways. Destruction of these nerves, either in their tract or fibers of origin, interrupts all consciousness of impression. Then irritation involving the fibers of origin in the spinal canal of these nerves will produce characteristic symptoms—for the anterior nerves, disturbance of muscularity in the inferior extremities; for the posterior fibers, abnormal sensations in the same parts.

There is another nervous system to which I will call your attention, and that is the sympathetic—branches of the ganglia of which accompany the blood-vessels in their peripheral distribution. These nerves have their connection with the spinal cord. But we observe nothing abnormal in these functions of the vasal nerves in his extremities, except a considerable extent of redness on the outer portion of the ankle.

Now, where is the lesion situated in the cord? I have already called your attention to the fact that while sensation in the lower extremities is lost, the power of voluntary movement to a great extent still exists. We therefore infer that the central portion of the gray matter and the posterior columns of the cord are chiefly affected. Further, the lesion is situated in the lower portions of the cord, affecting chiefly the part from which the sacral plexus arises, and to a less extent the origin of the lumbar plexus. This is known by the study we have made in your presence of the sensory and motor functions. The parts paralyzed obtain their nervous supply mainly from the sacral plexus. Some parts supplied with branches from the lumbar plexus are affected, but not to the same extent. You observe that he can bend the thigh upon the abdomen with less difficulty than he can make any other movement of the inferior extremities. The muscles performing this act are supplied chiefly by the anterior crural nerve, the great branch of the lumbar plexus.

In regard to localization, I have confined the lesion to the spinal cord, and do not consider that it involves the nervous tracts often issuing from it; because the anterior and posterior fibers quickly unite, forming compound nerves, so that any injury affecting the nervous strands would involve equally the sensory and motor fibers. But we see while the sensory functions are so completely involved, the motor are greatly less so.

And we have also shown the electro-muscular action to be intact, which is further proof that the lesion is not peripheral.

The third part of our inquiry is the most difficult of all, viz: What is the nature of this lesion?

It must now be stated what its advent was. About a year ago, he fell from a height striking upon the lower part of his spine, and he was insensible for several hours.

Upon his return to consciousness, he found that he had lost feeling in his lower extremities, and had impaired power to move at will; besides, he could not void his urine well, and had not control of his bowels as formerly. His bowels are in a constant state of constipation. There was tenderness of the spine over the upper portion of the lumbar vertebra. After being treated at home for a time, he was brought to this hospital and placed in the surgical ward, and there were verified the general symptoms pointed out. No fracture of a vertebra was detected. He was discharged at his own request, after a few weeks, with no amendment.

Within the past week, he has come back to us in the condition now presented. Besides the symptons detailed, he suffered, he says, a feeling of tightness at first, around his body. Now and then some spasms occur in the large muscles of the thigh. You noticed one of these in the biceps when attempting to hold up his right leg; violent trembling and jerking supervene, if he attempt to lift the whole leg, while lying on his back. These muscular irregularities are due, I take it, to the irritability of function of the gray matter in the anterior part of the cord, with which the motor roots are connected. In short, the predominance of structural lesions is shown to involve more or less the whole of the gray matter of the cord; and this we learn was suddenly developed, following at once the fall.

It can not, therefore, be the result of an inflammatory process, either in the membranes or cord itself; in other words, we have not a product here of meningitis or of myelitis—there was no time for these. Nor can I think it was from any injury to the vertebra. Something occurred at the moment of the injury or quickly following it, that has destroyed so largely and completely the nervous mass in the cord.

From my first study of the case at the close of my last lecture, with an imperfect knowledge of his previous history, as I subsequently found, I was divided in opinion between softening from sudden cutting off of blood-supply, and hemorrhage into the substance of the cord from the blow. I now feel convinced the latter condition is the true one; and assuming that this is the nature of the lesion, it explains satisfactorily the destruction of the tract at the point of rupture, cutting off sensation from the parts below, and the absence of reflex action. And while the irritation of the blood-clot is not felt much, it yet does produce more or less discharging lesions in the anterior horns of the gray matter and associate white fibers, manifested by more or less spasms, and the trembling and jerking so violently exhibited in your presence, when voluntary movements of the legs are attempted.

The prognosis is unfavorable. Not much can be expected by treatment; nevertheless, hoping that something retrievable exists in the environment of the clot, we are using hypodermic injections of $\frac{1}{60}$ gr. strychnia daily, and shall essay the constant current of a galvanic battery. He says that he has more sensation since we began the treatment.

Whatever further change shall take place in the patient during the winter, will be shown to you.

To Keep Away Flies.—The sick and the wounded are, in warm weather, often dreadfully annoyed by flies. The suggestion of a French veterinary surgeon deserves trial at such times. He says that a simple method of preventing flies from annoying horses consists in painting the inside of the ears, or any other part especially troubled, with a few drops of empyræumatic oil of juniper. It is said that the odor of this substance is unendurable to flies, and that they will keep at a distance from the parts so anointed. If this treatment should accomplish the alleged result, it will be a great blessing to introduce into the sick-room.

Treatment of Acute Articular Rheumatism by Means of Immovable Bandages.—In the *Archiv Heilk.*, Heft 5, 1873, Dr. Oehme relates his experience of the above means of treatment in forty-five cases of rheumatism. After comparison with various means of treatment employed in forty-five other similar cases, Dr. Oehme stated the following results in favor of the bandage system: 1. The pain is considerably lessened. 2. The duration of fever is much shortened. 3. The duration of the whole attack is considerably abbreviated.—*London Lancet.*

New Remedies and Selections.

By J. S. UNZICKER, M.D.

Rhamnus Frangula.—Several communications have lately been published in our journal, on the advantages of the R. frangula as a laxative or cathartic.

Having used this remedy for the last eight or ten years, I can not say that it possesses any advantages over other articles of that class for that particular purpose; but in the cure of hemorrhoids it certainly stands unrivaled, and holds the same rank in chronic piles, as potassii tartras does in those of a more acute or inflammatory form. Both, when given in their proper place, quickly remove all portal congestion, constipation, and all that disagreeable feeling connected with this complaint. The frangula ought to be given at bedtime, either as an infusion or decoction—ʒj to ʒij to four ounces of water—or from one to two teaspoonfuls of Squibbs' fluid extract. Thus given, it acts more mildly and with less annoyance to the patient than when given in morning. If, however, the above dose should produce more than one or two soft passages, the dose must be reduced, and purging avoided, as the latter would only aggravate the trouble and do no good. I have known some of the most inveterate cases, which had for years resisted the treatment of some of our most eminent physicians, cured by the continued and judicious use of the frangula for some length of time.

R. frangula must not be confounded with the *R. cathartica* (buckthorn), so much used in England. The latter is a thorny bush, of which the berries only are used. The former is an insignificant shrub; grows in wet and swampy woods, sometimes hanging over wet rocks. It grows from six to ten feet high, the main trunk about three inches in thickness. The Germans call it "*Faulbaum*," owing to the peculiar disagreeable odor of the leaves and branches. The bark is only used in medicine.

Selections.

The Lazaretto at Tracadie, N. B.—The Lazaretto is a long narrow one-story wooden building, surrounded with stout palings about twelve feet high, pointed at the top, and evidently at first intended to confine the lepers within bounds, though the palings are now broken down in one place, leaving a gap of several feet in length. Entering the common room of the male lepers (which is also their dormitory), you find the floor of the rooms overhead only single-boarded, and I think not even grooved and tongued; yet above are the most loathsome cases. Surely, a double floor and a plastered ceiling should shut off the sweepings from above, and the exhalations from below. The house is provided with ventilators.

The female patients occupy the up-stairs part of the next bay, over the room used as the chapel. Here more accommodation is greatly needed. Arriving at so early an hour, before the rooms were "made up," we could not see any part of the upper story but that allotted to the use of the nuns. But at one of the upper windows, as we came up the front walk, we noticed some three or four nice-looking young women, in white caps and clean cotton dresses, looking out at the strangers. Apathy, one symptom of their dreadful disease, had not as yet been able to conquer that curiosity which is said to be characteristic of their sex. But neither their curiosity nor ours was destined to be gratified by a nearer interview.

The leprosy of these people is of the kind known by the scientific name of *Elephantiasis Græcorum*, from its tendency to cause the limbs to swell to elephantine proportions, and its origin and perpetuation in the Grecian Archipelago. The accounts of its first introduction into the country near the mouth of the Miramichi river, to some extent, are conflicting. One is, that about ninety-two years ago, a French merchant ship "*L'Indienne*," sailed from Morlaix, in France, to Smyrna, touched at the island of Mitylene, and received clothing and other stores from a village called "Livochori," in that island, this village being noted from time immemorial for the prevalence of *Elephantiasis Græcorum* among its inhabitants. Thence the ship sailed for Beaubair's Island, a French military establishment on the Miramichi river, just above the present village of Nelson; but being wrecked near Bay de Vin, at the mouth of the river, the people on Beaubair's Island, asserted their right to as much of the wrecked stuff as they could recover, and among the rest, to a portion of the clothing from the leprous village in the Grecian Archipelago. The consequence was that M. Beaubair, the head of their establishment, was the first victim to leprosy, of which he died on the island called by his name. Others being attacked by this new and terrible disorder, forsook the place and scattered to Tracadie and other settlements near the mouth of the river. After a time, the nature of the disease becoming known, the New Brunswick government established a Lazaretto on Sheldrake Island, below Bartebogue, but afterward finding all infected persons sent to the establishment to be natives of Tracadie or its immediate vicinity, decided to remove the hospital to that place.

Another account states that "*L'Indienne*" sailed from St. Malo's, in France, to the Grecian Archipelago, and thence to Bay de Vin, where she was wrecked; but maintains that she brought in her company two leprous men, natives of St. Malo's, where the disease was existing at the time of the ship's departure. The names of the lepers who were brought to Miramichi, are given as Bredeaux and Comeau The late Dr. Stafford Benson, of Guy's Hospital, London, who was for many years the leading physician at Chatham, N. B., several times visited the Miramichi lepers, and reported on the disease to the British and Provincial governments, assured us that every leper hitherto known in Miramichi, was lineally descended from one or the other of these two men. This would go to prove that this kind of leprosy is hereditary, and not commonly otherwise communicated. Dr. Nicholson, who studied his profession partly under the guidance of Dr. Benson, and for some time held the situation of medical officer at the Lazaretto, when it was a hospital, and not as now, an asylum, had no fear of contagion in treating the disease, as he not only smoked from the same tobacco-pipes with the lepers, by way of experiment, but even accidentally cut his finger with the dissecting knife, at the *post-mortem* examination of a very bad case, without any apparent ill consequences. It is to be noted, however, that Dr. Nicholson died young, and this disease sometimes lingers in the system for some years, before its unmistakable outward indications appear.

As in most disputed matters, science and common report vary a good deal as to the propagation of this species of leprosy. Cases are mentioned by persons in and near Tracadie, of inoculation and subsequent death from handling deceased lepers, or from intimate connection with the living. On the other hand, it is well known that a woman who was for many years employed to wash for the sick at the Lazaretto, showed no sign of the disease; and some lepers are known to have lived with healthy persons, as man and wife, without communicating the complaint, except to their unfortunate offspring. And here I may remark that atavism is the general rule, as is generally the case in hereditary diseases, the inherited taint manifesting itself in every alternate generation. It is perhaps for this reason, as well as because of the usual inprovidence of the ignorant, that the French Acadians at and near Tracadie marry as readily into leprous families as any other, and thus there seems to be no probability of extinguishing the disease in that locality. Intermarriage among lepers greatly increases the virulence of the disease in their descendants.

The mode of life of many of the Acadian French at Tracadie, is well calculated to aggravate any scrofulous taint. It is said, in that neighborhood, that the rule of these *habitants* is to provide every autumn a barrel of salt fish for every barrel of potatoes to be used in their families during the winter, and that wheaten bread is a very scarce commodity—some among the poorer sort subsisting for months without bread of any kind. Economy of bodily exertion is too often accompanied by economy of soap and water, and to this rule the Acadians of Tracadie show but few exceptions. There is of course there, as in most other places, a better class; but I am now speaking of the willfully poor.

The first outward indication of the Greek or black leprosy is the appearance on the breast of one or two small spots of a light-fawn color. The face assumes a puffy or dropsical look. At first there is a great deal of pain there, and the patient experiences an uncontrollable drowsiness and apathy. After a time, the extremities swell, the fingers become crooked, and the nails and joints of the fingers and toes drop off. The skin of the face becomes quite black, the lips swell to an extraordinary thickness, the hair of the eyebrows and eyelashes falls off, shining lumps and blotches appear on the limbs and on the face, the cartilage of the nose decays, and the upper part of the nose falls to the level of the face. Toward the last, the throat and lungs are attacked; the patient is for a little time confined to bed, and finally strangles, as in some cases of consumption. The duration of the disease varies according to the strength of the constitution, say from five to twenty-five years.

We saw and conversed with such of the male lepers as were able to go abroad, of ages varying from ten to over forty years. A little boy about ten years of age was quite black and very much swollen, and the eldest of the number was already attacked in the throat. Two boys seemed of clear complexion and free from all outward marks of illness, until we saw their swollen and crooked fingers.

The disease was first *officially* recognized here about thirty-eight years ago (1831), and many have perished by it. Now from time to time, fresh cases are discovered in and around Tracadie, and brought to the Lazaretto to die. Before the arrival of the nuns, this was indeed a dismal place, and one can not wonder that affected persons when sought for by the authorities, strove by every means in their power, and were assisted by their friends, to conceal themselves in the woods and elsewhere, until the search, for the time, was over. It was not uncommon, also, for lepers, by the assistance of outsiders, to scale the palisade in the night, visit their families, and return before morning. But now skillful kindness and tender care have greatly abated the horrors of the asylum ; so that a poor young woman, not long before the time of our visit, having noticed on her bosom the fatal fawn-colored spots, at once made her sad state known to her parents, and at her own request, was taken to the Lazaretto.

The Rev. F. Ganvreau thinks that this disease may possibly, in some cases, be cured if taken in time, but maintains that it is utterly incurable, if once it masters the nervous system.

This kind of leprosy differs from all syphilitic disorders in one peculiarity, viz : the insensibility, after a time, of the affected parts. Two instances advanced by Father Gauvreau and Dr. Benson, will illustrate this. A leper named Bernardine Robicheau, sitting by a fire in the field, with some others, smoking his pipe, lay down to sleep, whilst the others wandered off to a little distance. Shortly afterward, perceiving the smell of roasting flesh, the others returned to the fire, and found that poor Robicheau in his sleep had thrown his hand behind his head into the fire, and was actually snoring whilst his hand was roasting to a cinder.

A woman in the Lazaretto was conversing with Dr. Benson near the stove, upon which she rested her hand, and did not know that her flesh was burning until Dr. Benson perceived it by the sense of smell.

The insensible flesh of a leper will bleed if cut, the same as any other part of the body.

The internal as well as external arrangements of the Lazaretto show precaution against contagion. The lepers do not worship in the chapel, but during the time of divine service remain in the men's common room. When all is ready, folding doors are thrown back, revealing sashes filled with glass, between the lepers' room and the chapel. One pane of glass is hinged, and immediately beneath it is a small shelf at which the consecrated wafer is received by each in succession. I need scarcely add that all these leprous French Acadians are Roman Catholics.

Loathsome and hopeless as is this disease, their natural French gayety does not entirely forsake the lepers. Several whom we saw were smoking their matutinal pipe, as they walked about in the sunshine; and on the wall of the men's common room hung the violin, on which some occasionally perform, whilst others, who can, trip it "on the light fantastic toe;" and narrow-minded and puritanical indeed would be the man who could find it in his heart to condemn their scanty recreation.

There were twenty-one patients in the Lazaretto at the time of our visit. Ten of these we saw in the common room and about the door, and the next day in St. Mary's church, Chatham, being the fourteenth Sunday after Trinity, the gospel for the day was the account, from the seventeenth chapter of St. John, of the healing of the ten men that were lepers. Never before did we so fully realize the almighty power and divine compassion of Jesus, who, with a word, cleansed those men of their loathsome disease, lifted the load of despair from their hearts, and restored them to society with its numberless blessings. And never before was man's ingratitude to God for his mercies so strongly brought home to our consciences by the words, "Were there not ten cleansed, but where are the nine?"

From a medical report on leprosy, lately published by the British government, we are led to infer that this terrible disease is on the increase in the British dependencies. Dr. Sutherland says that at Patna, in examining men as recruits, he had to reject one in ten as a leper. Dr. Canton estimates that in the villages of the Bombay Presidency, at least one person in every hundred of the population is a leper. It would appear, too, from this report, that extraordinary fear of contagion is evinced by the natives of India, for until prevented by the British authorities, the natives of Serinagur were accustomed to burn lepers alive, with a sort of religious ceremony.

In the Windward Islands of the West Indies, and in the Sandwich Islands, leprosy is very prevalent, and those affected are shut up in lazar houses.

In Norway, about one in every 750 of the inhabitants is a leper. This disease is also found in Iceland and in Mexico.

This disorder seems to be less affected by climate than by cleanliness and a proper regulation of the diet. It is noticeable that in Tracadie, bread is often a scarce article of food among the poorer sort; and in Norway and Iceland among the poor, it is increased in quantity, but much injured in quality, by the admixture of the bark of trees; and by pork in hot climates, etc.

Though the report of the British government gives us to understand that there is no cure for leprosy, a ray of hope comes from Trinidad. Dr. Beauparthny, of Cumana, claims to have discovered a remedy, painless and easy of application, and certain in its effects. At all events, the government authorities of Trinidad deemed his discovery worthy of investigation, and the Trinidad *Chronicle* of November 2, 1869, reported the case of a Portuguese child (Madeiran) diseased for five years, who had been completely cured by this method. Other remarkable effects of the remedy (a painting or laying on the affected parts) are reported.

Lepers, under the law of Moses, were disqualified from public business, and shut out from society. But among the Syrians, Naaman, the captain of the host, does not seem, on this account, to have been disqualified or excluded from office. There is, in fact, some doubt as to whether the exclusion of lepers from society among the ancient Jews was on account of ceremonial, uncleanness, or from fear of contagion.

In Great Britain, four centuries ago, lepers were excluded from society, and by civil and religious ceremonies, whilst yet living, the wretched victim of this disorder was numbered with the dead. He was first deprived of all his civil and political rights and privileges, and before he was consigned to the lazar house for the remainder of his life, the religious ceremonies for the burial of the dead were performed over and around him, the priest ending the fearful ceremonies of separation by throwing over the living man a shovelful of earth, as if closing the grave over all his earthly interests, his hopes and affections, and thus, with all his friends on earth, bidding him, for this world, a last and most solemn farewell.—*The Church Journal.*

Fistula in Ano. A Clinical Lecture, by ERSKINE MASON, M. D., *assistant Prof. Surgery in the University College at Charity Hospital.*—To-day, gentlemen, I shall call your attention to another variety of rectal disease, associated with hemorrhoids, viz: *fistula* and *fissure* of the anus. First we will say a few words in reference to fistula in ano, and then we shall examine and operate upon this patient before you, who has for some time suffered from a variety of this disease; and afterward you will be shown two other patients who, though the subjects of fistula, will enable me to demonstrate to you the other varieties of this condition. You will find that among the diseases of the rectum, fistula is one that is exceedingly frequent; and you may see it both in the young infant and the old man, but observed oftener in the male than the female. The earliest age which it has occurred to me to observe this affection was in a child eighteen months old, and in whom it had been known to have existed for six months. It was an example of what I shall presently describe to you as a complete fistula, half an inch in length, and situated posteriorly toward the coccyx. I have often seen it in this hospital in very old men, but their ages I am unable to give you. With respect to its frequency, it has been said by a recent writer to be the most common of rectal diseases which are observed in the adult; and the data for this statement are taken from the case-books of a hospital specially devoted to the treatment of rectal diseases. In general practice, however, I take it that you will see and hear more of hemorrhoids than the one which we shall study to-day. In considering fistulas we have also to speak of abscesses, for the fistula may be said to be but the result of abscess. Now, what are the exciting causes of this trouble? They may result from what we are obliged, through ignorance, to call "taking cold." Thus a person, as a result of sitting down upon a cold or damp stone while overheated, has an inflammation set up in the anolar tissue, immediately around the verge of the anus, or else in the locality which you know as the ischio-rectal fossa, and as a consequence of this, its termination may be abscess and fistula. Should you chance to see this trouble in its earlier stage, you would only notice the tissues in these localities, perhaps a little indurated or brawny, and painful to the touch, or else you might observe the parts presenting the appearance of a boil; which, after the discharge of pus, will often leave behind a permanent fistulous track, unless relieved by art. The reason of these fistulous tracks being so loath to heal of themselves, I think is often chiefly due to the mobility of the tissue in this neighborhood, though where there is a communication with the bowels, the presence of fecal matter is alone sufficient to keep the parts from healing. Another exciting cause is a traumatic one, viz: the wounding of the mucous membrane of the bowels, either from fish-bones or some other hard substance that has been swallowed with the food, and as a proof of this, these bodies have been found in the abscesses that have formed outside the bowel. The most frequent cause I believe to be the passage of hardened feces, especially in those who are the subjects of internal hemorrhoids, and have to strain violently at stool. In proof of this I think you will often find that the internal orifice of these fistulas is often situated just at the upper part of the base of a hemorrhoidal tissue (and may indeed be caused even by one of these pendulous tissues), and, again, the mucous membrane, just in this situation, is often very much thinned by constant tension exerted by these tissues, which often present a considerable obstruction to the free movement of the bowels. The lacerated wounds thus made in the internal coats, sets up a cellulitis which passes into the suppurative stage, and hence abscess and fistula result.

Again, the bowels may not be actually wounded, but the passage of these harder masses may be sufficient to set up inflammation in some of the follicles of the intestine, which gives rise to an ulcer which perforates the bowels, and the result is the same as in the former case. This condition is the one which probably takes place in those constitutions which have been vitiated from disease, and hence perhaps the cause that fistula may be so often (if looked for) observed in those who are suffering from phthisis. Let this suffice, then, for some of the causes.

Now, gentlemen, from some remarks I have just made, I by no means wish you to infer that every induration or boil that you may see in the neighborhood of the anus is certainly going to give rise to fistula. The tendency that way, it is true, is very great, and may indeed so result, in spite of surgical aid; yet, on the other hand, timely treatment, such as warm fomentations to the parts, or when pus is present, free incision, so as to give ready exit to matter, and then rest and attention to the parts, may spare a patient from the unpleasant result of fistula.

I said I would show you some varieties of fistula to-day. Here, for example, is a man who for some time has had what we term a complete fistula, and upon whom we shall presently operate. By the term complete, we mean one that has not only an external opening, but also an opening into the bowels. Thus you see I readily pass this silver probe through the external opening and along the fistulous track for nearly an inch, and on turning the probe you see it has passed out of the anus. Now, very many fistulæ, which upon first examination may appear to you incomplete, I feel sure, if you use a little care, and do not seek for another opening too high up the bowel, you will find to be really as complete as the one you have just seen. But in the case of this woman now upon the table, I feel sure that this is not the case. Here you perceive a small opening from which flows a drop of pus; taking this same probe I pass it into the opening, and you see it passes up along the side of the bowel, perhaps as far as in the other case. Now introducing the index finger of my left hand into the bowel, I feel the probe distinctly through the coats of the intestine, but after careful examination no communication with the bowel is detected. This, then, is a variety of incomplete fistula, and we call it a blind external fistula, because it has no internal opening.

·While this patient is on the table we shall proceed to operate at once, for fear her courrge should fail her at a subsequent time. The operation will consist in first converting this into a complete variety, and I do this by passing a director through the fistula, and when it has reached the end of the fistula I turn it and thrust it into the bowel, taking care at the same time not to wound my finger which is in the bowel. Now by raising up the end of the probe in my hand I cause its point to pass out of the bowel; if the patient will strain down, this maneuver will be facilitated. Now I pass this sharp-pointed bistoury along the groove of the director, and cut through all the tissues which bridge over the director, and the fistula is now laid open. After this is done you had better search with the probe to see if perchance there is any fistulous track extending above, that you have not opened up. Should you find one you had better proceed at once to lay it open, else your operation may not prove a radical success. If the edges of the fistula, after laying it open, show a tendency to curve in, it will be beneficial to trim them off with the scissors, else they may offer a serious obstacle to the wound healing from the bottom. The after-treatment will consist in placing a small piece of lint in the bottom of the wound, and this will be changed from time to time; and each time as soon as granulations show themselves, which will be in a few days, the size of the lint will be diminished. The method that is pursued by some of packing the wound with a large quantity of lint, I believe, accomplishes no good, and certainly is a source of great annoyance to the patient, giving rise, as it does, to tenesmus and straining to extrude this foreign body. A pad of dry lint and T bandage, such as you saw me use after operating on piles, will afford considerable relief to the pain that follows the first four hours after the operation. The patient will now be placed in bed, and the bowels kept confined for a day or two. After the fistula begins to fill up, you may allow your patient to sit up or lie upon a lounge. If you let them move about the room, union is greatly delayed. In about two weeks, such a fistula as the one just operated on, will, as a rule, have healed. Should at any time the wound appear indolent, you treat it by stimulating applications, as the balsam of Peru, or a mild solution of carbolic acid, or the black wash; the balsam of Peru is the one most frequently used in this hospital. In the majority of cases I do not think any of these will be required. The sooner a fistula heals after the operation the better; should they be sluggish in this respect, you must not only pay attention to the general health of the patient, but examine carefully the fistula, and see that the pus has not burrowed, thus giving rise to other fistulous tracks. If, after your patient has been going about, he complains of pus coming from the bowel in any considerable quantity, examine carefully for such fistulous track that has not healed; if you find it, lay it open at once, and keep him quiet till it has thoroughly healed. You will perhaps hear of patients that after having had a fistula cut, have afterward never fully regained the power over their sphincter, and as a result have suffered more or less from incontinence of pus. Fortunately this is a rare accident, and must probably be due to a careless and rash mode of operating, as in making, unnecessarily, a too free division of the whole sphincter muscle in more than one place at the same time, and perhaps in carrying your incision too far backward into the surrounding tissues toward the buttock, or else it may be due to improper or entire neglect of after-treatment, and this may be as much due to fault on the part of the patient as on that of the surgeon.

From what I have seen I would advise you, should you meet with a case of fistula having two external openings, one on either side of the bowel, not to divide the sphincter freely on both sides at the same time; you had better make two operations, if necessary, rather than run the risk of destroying or so weakening the sphincter as to leave your patient in a condition worse than before. This fact was very strongly impressed upon my mind by the case of a lady whom, a year ago, I was called to take care of. I found her in a most deplorable condition, having no control over feces or flatus; she had been operated upon five months before for "two fistulæ." I found the sphincter had been completely divided on opposite sides, and the incision on both sides carried far outward toward the buttocks, and the anus gaping wide open. The operator (for I will not call him a surgeon) had left the case without any appropriate treatment, and the result was what I have just stated. By means of paring the edges of one of these large holes, which was the result of his operation, and retaining them together by silver suture, union took place, and she was thus enabled to have a great control over her motions, and go about with considerable comfort.

I shall speak, further on, in reference to other modes of treatment that are practiced, besides the one with the knife; at present I wish to refer to some other forms of fistula, while a patient is being placed under ether. There is another form of incomplete fistula, viz., blind internal, because it has no external opening, only an opening communicating with the bowel. I shall not do much more to-day than briefly refer to it, as I have no case of the kind to show you. Without care on your part this fistula may pass undetected. It is not of very frequent occurrence, but when present is a very painful one at times, and the symptoms are often very like those attendant upon fissure (a disease I will at some time show you, and make some remarks about). The opening of this fistula in the bowel is at times very large, thus allowing of ready ingress of fecal matter, which induces its painful train of symptoms, and with the finger in the bowel you may often feel its indurated track. In operating upon these fistulas you have to pass a probe or director, curved so as to enter the opening and pass down the side of the bowel; when its point is felt beneath the skin you cut down upon it with your knife, thus converting it into a complete fistula. The operation is then completed as in the case you have just seen.

These fistulas, if left to themselves, will often become complete, but in so doing, if the process is not rapid, considerable tissue may become undermined in the attempt. From what has already been said you will understand that many of the complete variety you see originally began as an incomplete or blind internal fistula. There is still another form, which has been spoken of by some as the horse-shoe fistula. It has but one external opening, and perhaps at first sight appears simply as an ordinary complete fistula; but upon laying it open you will find, by means of the probe, several fistulous tracks starting from this old fistula (if I may so call it), and passing in different directions, so as perhaps to completely encircle the bowels. In these cases, after laying open the main track, these tributaries, so to speak, will have to be opened up before a complete cure will result, and this may be done without cutting the sphincter muscle too extensively, for many of these fistulous tracks pass just beneath the mucous membrance; at least I have found it so. While speaking of laying open these sinuses I must tell you that the profession is divided somewhat upon the question—whether it be essential to lay open a fistulous track which extends beyond the internal opening? If this is not done, I know from experience that a perfect cure may result, and I also know from experience that the reverse of this will at times follow, necessitating a further operation. If the entire length of the fistulous track can with safety be laid open, I believe it the best plan to be pursued. Yet I have seen cases where I have deemed such a proceeding hazardous for fear of hemorrhage that would be difficult to control, so high up the bowel did the sinus extend beyond the internal opening. These cases will have to be dealt with, as each individual case may seem to the surgeon to demand. No one rule, I think, can be laid down that will apply to all such cases with safety. In seeking for the internal opening of fistula, where shall we look for it? This very point, let me tell you, has been the subject of considerable investigation and controversy, some contending that it was just within the anus, others that it was an inch or more above the anus. I shall not refer to this matter further than to say that I think you should seek for it about half an inch from the anus, and in the majority of cases it will be found in about that situation, often, indeed, it may be more superficial, and because it may be so superficial it is not to be neglected, but to be operated upon just as well as if it extended two inches up the bowel. In examining if the fistulous track extend higher up than the internal opening, you must hold your probe very lightly, for it will be a very easy matter to run the probe up the surrounding tissues or between the coats of the bowel, thus giving the impression of an extensive fistulous track, where in reality none exists. I will now show you in the person of this woman, who is very much run down from prolonged suppuration, several fistulæ, all of which communicate with the rectum. Her history is briefly this. Some months ago she had a large abscess in the ischio-rectal fossa, which, after long suffering, broke externally. At present you will notice a fistulous opening by the side of the anus, and the probe can be passed through this either into the bowel, as you now see, or else, by turning it outward, it enters the ischio-rectal fossa. On the left side, about the middle of the labia, is another fistulous opening, which leads into the bowel just at the point of the opening of the other sinus, and lately another opening has appeared in the left groin, and I doubt not, like all these sinuses, communicate with the ischio-rectal fossa, as the probe passes down through the abductor muscles. The probe passed through the opening by the side of the labia can also be passed downward and backward thus, until it is arrested by the tuberosity of the ischium, which is discovered to be increased. All this condition is the result of a neglected abscess in the ischio-rectal space, and from the history she gives is a result of gonorrhea and a large chancroid, followed by cellulitis in this immediate vicinity. The abscess in the ischio-rectal fossa has been freely opened and is washed out with carbolic acid lotion. Her general condition, as you see, is very bad, but under stimulants and a better diet than she has been accustomed to, she has greatly improved since she entered the hospital. At present, however, she is in no condition for any further remedial operation. I only present the case to you that you may see some other situations where fistulæ communicating with the rectum and this fossa may open, other than I have just spoken of.

The diagnosis of fistula is usually easy, and the method of detecting to which variety it belongs, you have already seen. You must bear in mind that we have fistula in the neighborhood of the anus, which, however, are not rectal, but urinary; these latter, however, are very characteristic; usually they are of a rose color, elevated, with a small depression in the center, and though they may exude a drop of pus, the discharge is chiefly fluid, and of urinous odor, and the discharge takes place during or just after the act of micturition. The direction which a probe introduced into them will take, together with the general history of the case, should suffice to prevent you from falling into error in your diagnosis. Patients who come to you with fistula will often only complain of hemorrhoids, and give you the symptoms that I have already given you when speaking of that affection. Indeed, they may only become acquainted with the fact that they are the subject of fistula from your examination. On the other hand, they may give you the symptoms of having suffered from an abscess in this vicinity, and complain of their clothing being soiled from a purulent or fecal discharge, which condition may be more or less constant. In examining a patient with hemorrhoids it is always well to seek carefully whether or no fistula does not also exist, and if you are not careful in those examinations, a small fistula may escape your attention. *Is there any choice as to time of operating?* If you propose to operate at all, the sooner after the discovery of the fistula, I think, the better, except it be just after an abscess has been opened and the parts are inflamed; here we should prefer to delay till the acute symptoms have subsided, and we have only a fistulous track to deal with. Fistulæ that are met with in connection with stricture of the bowel, of course you should not think of interfering with before you have relieved the stricture, for before this your operation could confer no benefit upon your patient. In your textbooks you will find much in reference to operating upon patients the subjects of phthisis. We have not time now but to refer to this point. My own views are that this idea has been carried to an extreme by many. If a patient have some deposit in his lungs, and his general condition be quite fair, and yet suffers from a troublesome fistula, I see no reason why you should withhold relief from him. If he be far advanced in tuberculous disease, you will of course not think of operating for fistula, or for any other cause hazarding an operation. You have now seen two operations by means of the knife, but I must refer to other modes that have been in vogue, and are still in some instances practiced. Before enumerating these, I should tell you that you may see cases that get well without any treatment, or at least you will read of them in the books; but this is very, very far from being the rule. Formerly, caustics were freely used for the purpose of destroying fistulæ; this now is abandoned, unless we make an exception to the practice used at times of injecting the sinus with stimulating fluids, such as tincture of iodine, nitrate of silver, sulphate of copper, etc. These, though not very reliable, may prove of service in some superficial varieties. The ligature applied, as I now show you, has been often restored to, and in those who are timid of the knife, or will not lay up for a few days, it can be used with every prospect of success. Its great objections are, that it is not only a more painful method, the ligature having to be tightened from time to time in some cases, the length of time that may elapse before the ligature cuts through, and the uncleanliness necessarily attendant upon it. Certainly, of all methods which have been used, the one by the knife is the most satisfactory in every respect, and therefore, when possible, should be the one you select.—*N. Y. Medical Record.*

A truly cardiac patient—one suffering from actual disease of the heart—as a rule comes to you complaining, not of that organ, but of one or other of the secondary results of his lesion. He complains of breathlessness or of dropsy, either or both of which may result from that lesion if it be uncompensated, or if the compensation be ruptured. If the patient complain of shortness of breath, as is often the case, you will find that this cardiac breathlessness presents certain distinctive features wherein it differs from pulmonary breathlessness, the most striking of these being the perfect tranquillity of the breathing while the patient is at rest, at the same time that any exertion at once produces so anxious a desire for more air as can be expressed by no fitter term than the air-hunger of the Germans. The amount of lesion is not to be measured by this breathlessness, but its seriousness, as dependent upon the degree in which the compensation is ruptured, may certainly be so. The patient may only puff considerably in going up a hill or ascending a stair, or his shortness of breath may be so great as speedily to compel him to call a halt on attempting either of these feats; or it may be so extreme as to prove distressing on making such perfectly trifling exertions as merely sitting up or turning in bed. At the same time there is no true dyspnœa, or difficult breathing, properly so called; there is no obstruction either to inspiration or expiration; there may even be no curtailment of the air-space in the lungs from any cause whatever; the breathing while the patient is at rest is perfectly quiet and natural; yet such is the difficulty—from cardiac causes—of getting the blood aërated, that the slightest exertion produces such a gasping inquietude as is extremely characteristic. This is one form of cardiac asthma, as it is termed; now and then we have another, in which the breathlessness, though not dependent upon exertion, is yet equally independent of pulmonary lesion. In this case the patient wakes gasping and alarmed from his first sleep; he has palpitation, occasionally pain (angina), almost always irregular action of the heart, which is always feeble; now and then the patient is sick, and sometimes vomits a mouthful or two. This form of cardiac asthma is mostly senile in character, and associated with muscular degeneration rather than with valvular lesion. It frequently arises from some slight gastric derangement, which reflexly affects the enfeebled heart in an injurious manner; and it is often the beginning of the end to those affected—the first intimation that the "pitcher is broken at the fountain," and that death has already seized the very citadel of life. Such patients, however, never come to you—you are always sent for to see them; and I have only mentioned this affection now to illustrate the fact that exertion is not always necessary to produce cardiac breathlessness, and that even in this case the panting is characteristic, while the absence of pulmonary lesion marks its cardiac origin. To produce so-called cardiac breathlessness, however, it is not necessary to have actual cardiac disease. Breathlessness depends upon imperfect aeration of the blood, and in the absence of pulmonary lesion may depend upon lesion of the heart or of the blood itself. Even though a patient, then, presents all the characteristic symptoms of cardiac asthma, we must not therefore set him down as certainly laboring under cardiac disease: he may be only anæmic. But inasmuch as anæmia and cardiac disease frequently co-exist, the assured presence of the former, evinced by the bloodless condition of the lips, gums, etc., does not exclude the latter. The presence of breathlessness having the characteristic symptoms described, makes us certain that we have to do with a hæmic or a cardiac lesion; which it is, we must determine by further inquiries.—" *On the Diagnosis of Disease of the Heart*," *by George W. Balfour, M.D., F.R.C.P.E.* (*Edinburgh Medical Journal, June*, 1874.)

Castor Oil vomited up forty Minutes after being injected into the Rectum.—On the 30th day of July, 1874, I was called in great haste to Mrs. E. H——, aged 47, who was complaining of great nausea and incessant retching—vomiting a glairy mucus, and also everything that was taken into the stomach; hence we were forced to resort to the use of injections, both hypodermical and rectal.

There being considerable constipation, it was evidently necessary to open the bowels as speedily as possible. For this purpose we used the ordinary injection—castor oil forming a part, and which was vomited up within forty minutes afterward. The attention of Dr. Fletcher (who was present in consultation) was immediately called to the appearance of the ejected matter in the night-glass, when he carefully separated the oil from the mucus, and bottled nearly a tablespoonful, which he took to his office and thoroughly examined. It was, beyond all doubt, the oil which had been injected, as she had taken no oil into the stomach.

Her bowels were freely purged shortly afterward.

She has been a very healthy woman until within the last twelve months, during which time she has been suffering some irregularity in her menstrual periods.—H. M. HEARN, M. D., *in Nashville Journal of Med. and Surg.*

When the left lung is retracted from the base of the heart from any cause the pulsation of the pulmonary artery between the second and third ribs, close to the sternum, may be distinctly felt, and even the click of the semi-lunar valves perceived, because sounds consist of vibrations sufficiently rapid to become appreciated by the ear, and can always be both felt and seen if the propagating medium be suitable. Hence friction, the result of rubbing together of the two layers of the pericardium when roughened by lymph, is easily perceived by the hand, and even the vibration of valvular murmurs are readily enough appreciated. When rough, these vibrations have received the name of the purring thrill—*fremissement cataire*—because the sensation felt resembles that perceived on placing the hand on the body of a cat in the act of purring. Abnormal pulsations along the course of the thoracic aorta are usually confined to the ascending and transverse portions, and may be the result of simple displacement of the vessel, as occasionally happens in rickety chests, or they may be the result of aneurismal dilatations, and must be sought for in the tracheal fossa, as well as between the ribs along the course of the aorta, especially during expiration, when such pulsations, if faint, are most readily felt.—"*On the Diagnosis of Disease of the Heart,*" *by George W. Balfour, M.D., F.R.C.P.E. (Edinburgh Medical Journal, June,* 1874.)

Local Treatment of Pulmonary Cavities.—Dr. Mosler, of Greifswald, has, in a number of cases, and with relative success, penetrated directly from the surface through the thoracic parietes into caverns, pulmonary abscesses, and bronchial dilatations, treating them like ordinary abscesses.

One or more punctures are made with a canula of sufficient size, and a small quantity of permanganate solution injected. Dr. Mosler thinks that the pulmonary parenchyma is more tolerant than is generally supposed, and that it may be acted upon through the thoracic parietes in the same manner as any other organ to which the surgeon has access. Not only pulmonary cavities but pulmonary inflammations may be treated by medicated injections, just as other neoplastic parenchymatous tumors are treated. (*Berliner klin. Wochenschrift*, and *La Trib. Med.*, No. 306, 1874.)—G. R. C. *in New York Medical Journal.*

Raymond and Vulpian on the Pathology of Jaundice.—Le Progrès Médical, in reporting the proceedings of the Societé de Biologie of Paris (July 13, 1874), gives the following abstract of M. Raymond's paper. M. Raymond stated that he had observed an interesting fact throwing light on the pathology of jaundice, in two phthisical patients under the charge of M. Vulpian. In his pathological course, M. Vulpian, wishing to elucidate the various methods in which jaundice originates by means of experiments, remarked that next to obstruction by biliary calculi, the most common form of jaundice is that produced by swelling of the mucous membrane of the biliary passages, the so-called catarrhal jaundice; also, that Broussais believed in an extension of the inflammatory process, in what he called gastro-duodenitis. However, his theory was not popular, and it became the fashion to attribute the jaundice to hepatic congestion; but Virchow confirmed Broussais, showing that the obstruction in these cases was caused by a plug of mucus very near the duodenal opening of the common bile-duct. M. Vulpian added, "I have twice seen this in men, and have very often verified it in the dogs on which I experiment." This propagation of duodenitis to the biliary passages is very common in dogs, and it often happens that a number of symptoms are set up, like those collectively known under the name of black or malignant jaundice (*ictère grave*); the dog dies with hemorrhage and ataxo-adynamic symptoms.

The first of M. Raymond's cases was an old woman of sixty-four, who was in the third stage of phthisis. She had been in the hospital from November 10, and the disease followed its usual course, till January 15, when she was attacked with the most intense jaundice. The coloration was most marked in the skin, the conjunctivæ, and the lower surface of the tongue. Her urine contained a large quantity of bile-pigment, and the jaundice lasted till her death, three days afterward.

The second case was a young woman aged twenty-six years, also phthisical, who was admitted an in-patient in September, 1873; she became yellow on February 22. Like the first case, her jaundice was general. The feces were almost colorless, the urine contained bile-pigment largely, and the patient died four days afterward. The results of *post-mortem* examination were identical in both cases, except as regards the thoracic lesions. The gall-bladder was full of fluid; there were no gall-stones; the bile-ducts were moderately distended. On opening the duodenum, and pressing upon Water's papilla, some drops of thick mucus escaped, glutinous, and resembling bile in color; the bile-ducts were healthy, except that their walls were swollen; there were no granulations, nor induration, and they were not compressed by any swollen glands. The duodenum was thickened and red; at its lower portion Brunner's glands were seen to be hypertrophied, and to have the appearance of grains of rice, giving the mucous membrane a resemblance to shagreen. Here and there its membrane was still more raised, though slightly, probably from hypertrophied follicles. Microscopic examination, in the recent state, demonstrated very active congestion of the vessels of the mucous membrane of the duodenum. On examining Brunner's glands, their acini were found enlarged; and they were filled with swollen epithelial cells. Sections made perpendicularly to the mucous membrane, after suitable handling, showed still more plainly the multiplication of the epithelial elements in Brunner's glands, and in some preparations the solitary glands were found to be increased in size. It was thus clear that, in both these cases of duodenitis, the inflammation had reached the ductus choledochus, which was obstructed by a plug of mucus, while the retention of bile thus induced had brought on jaundice. The reaction against Broussais' views has gone too far in denying the existence of duodenitis, for it really exists. Broussais' mistake lay in exaggerating its importance.

At the same sitting, M. Poncet (of Lyons) made some remarks on hæmatic jaundice, and narrated his experiments on the urine of patients attacked with icterode coloration, as a sequel of large losses of blood. He has made many experiments on animals. After injecting blood into the subcutaneous areolar tissue in dogs, he has seen the urine also become reddish-brown. The color is due to an excess of urinary pigment, in consequence of the destruction in the tissues of a great number of red blood-corpuscles. In these cases there was no increase of bile-pigment.—*W. Bathurst Woodman, M. D., in London Medical Record.*

Pulsation is frequently seen in the epigastric region. Sometimes this is associated with absence of the apex-beat from its usual position, and is to be regarded as one form of its displacement—a displacement which may be brought about in various ways, the commonest of these being dilatation of the right ventricle, by which the left ventricle is pushed backward, the right one communicating its impulse to the lower part of the sternum and to the liver, which is then seen to pulsate in the scrobiculus cordis. It may be doubted if such pulsations are ever visible in a perfectly normal condition of the heart and neighboring organs. Assuredly, they are often seen where no actual cardiac disease exists; simple dilatation of the right ventricle is invariably more or less present when pulmonary congestion exists, even from such simple and temporary causes as strenuous exertion or bronchial catarrh; and whenever dilatation of the right side exists to any considerable extent, epigastric pulsation may be seen. It is rendered more perceptible by any cause which may effectively conduce to the transmission of such impulse to the abdominal walls. Thus it is sometimes favored by the existence of effusion in the pericardium; but especially by the occurrence of enlargement of the liver, which is so frequent a concomitant of dilatation of the right ventricle. Indeed, in such circumstances, the systolic impulse of the venous regurgitation itself is occasionally so great as to induce actual pulsation of the whole liver, a pulsation which is then visible, not merely in the scrobiculus cordis, but throughout the whole right hypochondriac region; an extent of hepatic pulsation which is not, however, always distinctive of great venous regurgitation, as it is occasionally seen as the result of the impulse communicated by a large aneurism lying immediately above the liver.—"*On the Diagnosis of Disease of the Heart*," *by Geo. W. Balfour, M. D.—Edinburgh Medical Journal; Medical Times and Gazette.*

In further examining the condition of our patient, we first feel both radial pulses simultaneously, noting whether the arteries are firmer or more tortuous than usual (atheroma). If there be a marked difference between the two radial arteries, we feel both brachials simultaneously; if these be equal, the difference between the two radials is due to irregular distribution. If the brachials differ, in all probability there is some abnormal physical cause to account for it—possibly an aneurism. Should the radial pulses be equal and regular, but small and feeble, we elevate the wrist to a level with the head, if the patient be standing or sitting; if lying, we elevate the arm to its full length perpendicularly to the body. Should the pulse then become extinguished, or nearly so, the patient is anæmic, and possibly anæmia is his sole disease, but we must never, under any circumstances, rely upon one symptom, however apparently trustworthy, but merely note it as an aid and a guide in our further investigation. Should the pulse, after elevation of the arm, remain small and feeble, but distinct, the cardiac disease, if present, is mitral. Irregularity of the pulse confirms this suspicion; extreme irregularity points to the probability of the affection of the mitral valve being constriction rather than dilatation. Should the small, feeble, and possibly irregular pulse remain, not only distinct after the elevation of the arm, but become more so, the systolic impulse being followed by such a sudden and complete collapse as to render the impulse apparently more marked, then we have to do with a double lesion, a mitral and also an aortic regurgitation. This form of pulse is, however, not always well marked; in many cases it is not easy of detection, and is therefore not to be relied upon unless the collapse is distinct. In simple aortic regurgitation, however, the peculiar sensation conveyed to the finger, and well known by the terms hammer or Corrigan's pulse, is usually well marked, and frequently so greatly increased by elevation of the arm as to become almost painful, and wholly unmistakable.—"*On the Diagnosis of Disease of the Heart,*" *by Geo. W. Balfour.—Edinburgh Medical Journal, June,* 1874; *Medical Times and Gazette.*

Tapping of the Chest.—When the fluid has been evacuated by exhausting apparatus, the lung, in expanding, may strike against the sharp and hard canula. To prevent this, M. Béhier, of Paris, uses a canula of soft metal to be introduced into the ordinary tube. When the pleura is emptied the soft canula bends down against the parietes of the chest, and the lung does not suffer.—*London Lancet.*

Editorial.

Woe! woe! Why were we ever induced to become the editor of a medical journal? The act was so weak and puerile. And now our feelings are completely torn asunder by contemplating the egregious mistake we have lately made by endeavoring, in our poor way, to enlighten the understanding of our readers by presenting the various methods that have been successfully adopted in obtaining a lucrative business. Yet, after our most humble apology for marking out the ways in so sinful a manner, and stating that what we wrote was general and not special in its application, our head has been bowed down, and we are made to lament over our wicked deeds as we read, in that most admirable exponent of medical science, *The Clinic*, that "the LANCET AND OBSERVER is distinguishing itself in general defamation of character;" and that "one of the gentlemen thus publicly assailed has seen fit to take a hand in the subject himself," by publishing an anonymous card in the *Commercial*, which is republished in *The Clinic.* And then our emotions bubble clear over, while our anguish of spirit will never be told, as we behold how *The Clinic* editor admonishes us by saying, "We are not in the habit of publishing articles of purely personal nature." Now, oh! most dignified of medical journals, may not our sins of commission, as well as those of omission, be forgiven, when it is brought to your memory that one of your distinguished correspondents but lately informed the numerous readers of *The Clinic* of the arts resorted to by distinguished gentlemen in London, to show that we did not establish the precedent of writing up successful men in the medical profession. We make the following extract from a London letter published in *The Clinic*, July 18, 1874:

"The dining-room—the first room entered from the hall on the ground floor of a London house—is universally, as I believe, used as a reception-room for patients, and a smaller room, at the end of the hall, as a consultation apartment. All London physicians have a butler or footman in livery in attendance. Some of these servants occupy a very confidential position and make engagements for the doctor. Dr. Gull's man is said to be especially expert in impressing visitors with the great importance of his master, and he makes the engagements for the visits days and weeks in advance. The anxious patient may appeal for an immediate interview, for an earlier appointment, but the inexorable attendant says it is impossible; that Sir William can not be disturbed; that the time named is the earliest period at which he can be seen. Sir William Gull's man is said to be well trained, and it is even hinted that anxious patients are sent laboriously away when Sir William Gull is only taking his morning cigar or whiling away a tedious hour with the last new novel; but this is obviously a slander, originating with envious and less successful doctors. But it is certainly true that the difficulty of seeing Sir William Gull only enhances the desire of his patients to procure his services—an illustration of the social law that men prize most that which is most difficult of attainment.

"A successful London doctor observes the same state on his rounds through the city as in his office. Driving a wretched horse in a perishing buggy, or trundling along in an omnibus, or aiding his strength with an occasional pull at a hansom or cab, does not suffice for the needs of a London consultant. He rides in a brougham or clarence carriage, his coachman in livery, his footman on the box. The great man is rolled up to the door of the mansion; he sits majestic until the mercury on the box has dismounted and opened the door of the carriage, and then, without haste or any impairment of dignified demeanor, he steps on the pavement. All this, which may appear unmeaning parade, is perfectly consistent with English notions of the fitness of things, and is in entire harmony with the social usages of London. The younger men ride in a brougham drawn by one horse and driven by a liveried coachman, but unattended by the footman."

Thus far we have not heard that Sir William Gull either tore his hair, rushed across the water, or threatened an injunction against the publication of *The Clinic*.

Having such an example set before us, it did not seem possible that we were guilty of a transgression when, in a humble way, we endeavored to present to our readers some of the ways resorted to by distinguished and successful gentlemen in our own land in order to get both fame and lucre. Further, we thought our subject a practical one, as we have not yet crossed the path of any doctor of either high or low degree, who scorned to be regarded as an *authority* by his professional brethren, or to be thankful that his purse was long and well filled with shekels. But, then, we have been so anonymously comforted by being told that those "lucubrations are grateful food for a few weak souls who hate those whom they can not equal."

Yet, again, are we comforted when we reflect that we are following in the footprints of those who regard themselves as peerless in their profession. And now, as we read the above extract, a queer kind of impression takes possession of us, and we are forced to the conclusion that some men are most wonderful imitators, whether of persons and things seen or read of; *i. e.*, the "butler or footman in livery in attendance," and their purpose, "impressing visitors with the great importance of their master," "is only taking his morning cigar or whiling away a tedious hour with the last new novel." Our grief is painful when we read the sentence following: "But this is obviously a slander, originating with envious and less successful doctors." The poor unfortunate, with "a wretched horse in a perishing buggy," or the still poorer creature who trudges on the sidewalk, "aiding his strength with an occasional pull in a hansom or cab," is not to be recognized as made out of the same quality of clay as "he (that) rides in a brougham or clarence carriage, his coachman in livery." And are we not told that "the great man is rolled up to the door of the mansion?" Although the poor are always with us, they are only to be visited by him who rides in a brougham or clarence after they are domiciled in a hospital. However, he is to be "without haste or any impairment of dignified demeanor (as) he steps on the pavement." Yea, shall he not impress those who are in authority, by communicating to them the fact that his burdens are too great for his physical nature to bear?

"The young men ride in a brougham drawn by one horse and driven by a liveried coachman, but unattended by the footman." See Matt. vi. 29. How very like ——.

And yet we would not for the world insinuate that any doctor outside the city of London is gotten up thusly by daylight; and who, after the evening shades envelop the land in darkness, commits his wearied body to the tender care of that well-trained servant, whose labors for the day are ended by tucking his master in his little bed; the music-box having been set in motion, the genius that within the next five years is to astonish the whole civilized world with the scintillations that are to be evolved from the convolutions of his brain, is sweetly wafted into the alluring arms of Morpheus, while

> "Through every pulse the music stole,
> And held sublime communion with his soul."

With inexpressible pleasure we say to all young disciples of Æsculapius, Go thou and do likewise; for such are the ways of some successful doctors.

Just here we are reminded, by our anonymous friend, that in our summary of methods we have not included "the editorial dodge." Well, now, most thoughtful and considerate of friends, that is a fact. We did think of it; but from a sense of modesty we refrained, having taken a hand at the business ourselves. But then, when we come to consult the book of Chronicles, we find that quite a number of the fraternity have achieved more or less success in shedding ink, thereby acquiring fame.

To generalize: There was Dr. Y., who has startled the whole medical profession by the boldness of his experiments and original modes of treating his patients. At an early period of his career he undertook to regularly fournish copy for a medical journal. Fortunately for the doctor, about the same time a most remarkable case of a newly discovered and strange disease came under his care. Ancient professors, who had walked the hospital wards from time immemorial, had never seen such a case. Surely Providence was kind to our newly fledged editor. The case would form an admirable base for an essay; and by *a liberal use* of a work in a foreign language, the brilliancy of his genius might dazzle the eyes of the readers of the aforesaid periodical, and his name and fame become a household word in the land where the journal did most circulate. And, as if the truly good doctor was not covered all over with the glory that shone around about the essay, one of his most eminent and worthy friends undertook to and did most effectually advertise the wonderful works of the rising genius. But, oh! ye who hanker after the liberal use of steel pens and writing fluid, dream not that it is in your power to follow in the wake of such a genius and accomplish the work of so great a master. As well might you seek to be a Raphael or Michael Angelo. Need we say that business rolled in, and a bank account was opened. Not only that, but much more than tongue can tell or pen describe. Having achieved such brilliant success as an editor, the doctor gracefully retired to seek other fields of darkness that might be illuminated by the dazzing scintillations that should emanate from his nervous organization.

And again was Providence most generous in preparing a subject in a new field of investigation. An old adipose, who had accumulated an abundance of ducats, had the misfortune to go short on the ordinary compound of oxygen and nitrogen, and was consequently taken with a leaving for the next world. Suspicions were aroused that the shortened supply of nature's pabulum was due to assistance rendered by those who coveted the aforesaid ducats. Such an opportunity for a display of scientific theories was not to be allowed to pass without a glimmer from our eminent friend. However, the subject was so abstruse that assistance must needs be called in, when, after great labor and much tribulation, a theory was propounded—the adipose had been penetrated and poison injected. Such a proposition being stated by so eminent a personage, we do not suppose that any doctor ever dared to think that old adipose ceased to live, move, and have his being in any other way; besides, did not his leave-taking in that manner add to the already great name of our friend, the doctor. One of the natural results of that compound theory was that the doctor's reputation as a medico-legal expert was established on a firm foundation.

Since then he has, after the similitude of him, "who played on a harp of a thousand strings, spirits of just men made perfect," engaged in very many scientific investigations, nearly all of which resulted successfully and added to the fame of the great physician. However, the doctor has one weakness—what eminent genius has not?—*i. e.*, in his most important pathological investigations, after the manner of the great man of Gotham, he performs his operations and makes his observations solitary and alone; but as the doctor condescends to publish these observations for the benefit of doctors of common and low degree, we will not find fault.

That the laity may not, in the future, be entirely ignorant of physiological phenomena, occasional popular lectures are delivered on that subject, which are illustrated by "decapitating the brains" of inferior animals, causing them to get their heads up and tails down in the most approved manner.

Much more might in truth be written; but—

Our readers are aware that a man by the name of McCormick died last summer, in New York, of hydrophobia, and that Dr. William A. Hammond made a post-mortem examination of portions of the brain and spinal cord of the deceased man.

Dr. Hammond then either published, or caused to be published, in one of the daily papers, a report of the result of his microscopic examination. That report was gotten up in the most sensational manner, and illustrated with cuts representing what was supposed to be the condition of brain of the dead man.

Now, Dr. Hammond, in a defense of his proceeding, states that "he had yet to learn that medical gentlemen of the highest respectability in their profession had any such qualifications as would render them competent to sit in judgment, on one of their own colleagues, in a matter involving a knowledge of the anatomy and histology of the nervous system." And yet Dr. Hammond thought it all right and proper to air his learning and special knowledge of the nervous system in the daily press.

For such unethical and unprofessional conduct he was criticised by Dr. Shrady, in the editorial columns of the New York *Medical Record*, to which Dr. Hammond took exceptions, demanding a retraction of the criticism, which Dr. Shrady very properly refused, believing that what he had written was just and deserved; but tendered to Dr. Hammond the use of the columns of the *Record* for a reply. This proposition Dr. Hammond did not see fit to accept, but at once instituted a suit for libel.

We characterize this proceeding, on the part of Dr. Hammond, as a gross outrage on a most honorable and worth representative of the medical press. The truth is that Dr. Hammond is puffed up in the imagination of his own wonderful greatness and superiority to every other member of the medical profession, and has not hesitated to dictate to that profession as if they were inferior creatures, and he *only* understood the mystery of his calling. And now, on this occasion, when a just criticism is made of conduct that he knew to be in direct violation of the code of ethics that he professes to recognize, he appeals to the courts for justice—a commodity which we most devoutly hope he will receive. So far as he individually is concerned, it is a matter of no great moment, as we do not doubt what will be the result. The principle involved is of very great importance to the whole profession.

Are the editors of the various medical journal to be compelled to bow down and worship at the feet of a few men, who claim to be peerless, and to have alone attained to a superior knowledge of medical lore—in fact, to enjoy a monopoly of that commodity, and who expect their praises to be sung at every revolution of the press that prints a medical journal?

While we appreciate honest scientific investigation, and men who possess superior attainments, we shall ever claim and exert the right to criticise unprofessional and unethical conduct in any member of the medical profession, and especially where we find such proceedings on the part of those who claim to stand on the top rung of the ladder of fame and wisdom—a position that often makes the claimant giddy and causes him to undertake proceedings that modest men would absolutely decline to attempt.

Dr. Hammond says of the editor of the Philadelphia *Medical Times*, who also criticised his proceedings, "He has *presumed* to dabble in the matter." Now, we would say to the aforesaid editor: Continue to dabble; it is healthy, and tends to a purification and elimination of unsound atoms of the body medical.

A Section of the History of the child Willie.—Some years ago, while under the care of his uncle, not yet having doffed his swaddling clothes, he fell and luxated no less than four cells of the white substance and two fibers of the gray substance of his cord, immediately under the anastamosis of the ninth cervical and sixth lumbar vertebræ. In consequence of his severe injury he was obliged to be carried to his bed, where he suffered the greatest agony of both body and mind, as these luxated cells and fibers constituted important links in the chain that convoluted between his vasomotors and locomotors.

At a consultation held by eminent surgeons, it was decided to apply a *tenia solium* as a counter-irritant. The result was little less than miraculous. In a very short space of time after the application he was able to undertake a journey of several miles, to the place where he did dwell. Notwithstanding the relief obtained by the continued application of the above sovereign remedy, there has, ever since his fall, been more or less smarting pain over the seat of injury, accompanied by a delutheren hallucination that is only kept under control by the great watchfulness and care of the child Frank.

Although not invited to attend the consultation that is called in Willie's case, we take the liberty of calling attention to the chronic character of his trouble, as well as to the peculiar nature of his former affliction. Considering the gravity of his delusions, we suggest that he be treated one day in each week with a hypodermic injection of one decillionth of a grain of hydrargyrum saccharatum, to be given by an expert just before being put in his crib. If the remedy produces too violent alteration of the tissues, let it be alternated with one quadrillionth of a grain of antimonii et potassii tartras, administered in the same manner. We recommend the above remedies in view of the fact that the *tenia solium*, some years since, entirely lost its effect. If the boy Frank should hesitate to administer the above powerful remedies, send at once for Robin, whose courage in such matters approaches sublimity. A poultice that acted as an agreeable emollient in Willie's case was composed of marrochetti. As Willie alone knows how marrochetti is prepared, he will have to be consulted as to its composition and usefulness.

For services rendered, and to show a due appreciation of the wonderful works of the child Willie, we suggest that a collection be taken up by the members of the New York Neurological Society, the proceeds to be expended in the purchase of a rubber ring on which the child may bite while going through the process known as cutting his wisdom teeth. Should there be a surplus of pennies after the purchase of the ring, let the balance be applied in supplying the child with a whistle and rattle. Be particular in seeing that there is no material about the mouth-piece of the whistle that would irritate his gums.

The members of the New York Neurological Society should advise with the proper authorities, and urge them not to allow the child Willie to be out on the street later than seven o'clock in the evening, lest he learn the common uses of alcoholic beverages, and be tempted to investigate their effects on his present enfeebled physique, not being careful as to the quantity he could absorb with entire safety.

We would very much like to know the why and the wherefore of those resolutions presented by the eminent gentleman who acted as foreman of the jury in the McCormick hydrophobia case? Will he please rise and explain? Also those *golden* opinions referred to by one of the jurors? And then, while he has his hand in, state how the man came to have hydrophobia, when it is intimated that the dog that bit him was not affected by that disease.

Who is the man that has so little appreciation of original scientific investigation as to intimate that the cuts published by the child Willie, in the *New York Tribune*, were copied from drawings made by another man, and did not represent what Willie saw through his lens?

Would it be entirely out of place for the New York Neurological Society to invite Dr. N. S. Davis, of Chicago, to deliver a lecture before its members on the meaning of the code of ethics adopted by the American Medical Association?

Ye wicked men of Gotham should not deal harshly with the child Willie, nor permit his "offended sensitiveness to excite his vasomotors, thereby stimulating either the vessels of his gray or green substance into an anomalous circulation."

When Frank tickles Willie, does Willie respond in the shape of *hash-ish?*

Which is the maddest, the dog that did not have hydrophobia or the child Willie?

Labeled: To be taken up gently and handled with care—the child Willie.

If precocious children in New York die young, watch Willie.

Surely Willie's Cross is too great for him to bear.

Willie must be worse. We understand that Robin is sent for, his immediate presence in consultation being required.

Is Willie's weakness for the green a complication of present troubles?

May not the great height to which Willie attained have produced vertigo?

We hope the eminent gentlemen in consultation over Willie will inform the scientific world as to the pathological condition of his cerebellum. They need not wait until he has shuffled off this mortal coil, but proceed at once to examine. The P. M. will correct any errors of manipulation or opinions expressed. Precedents are abundant.

We note the organization of "The Cincinnati Medical Society," with Dr. A. C. Kemper, President, and Dr. B. Stanton, Recording Secretary. The names of the gentlemen who compose the society are a sufficient guaranty of its success and usefulness. We expect to publish whatever is of interest in the proceedings. The members of the medical profession, in and immediately around the city, are sufficiently numerous to sustain two organizations of this character, and that in a creditable manner. Let each stimulate the other in the work of advancing the cause of medical science.

Reviews and Notices.

A Practical Treatise on the Diseases of Women. By T. GAILLARD THOMAS, M. D., Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, New York, etc. Fourth edition, thoroughly revised. Philadelphia: Henry C. Lea, Publisher. For sale by Robert Clarke & Co. Price $6.00.

We do not know of any work that has been better received and more universally commended by the profession than this really great treatise by Dr. Thomas—the practical evidence of which is presented in the statement that three large editions have been exhausted within five years; that the work has been translated into German, and arrangements are being made to have the present edition translated into French and Italian. Quite a number of new illustrations have been added, and some parts rewritten, in order to bring the work up to the advanced condition of gynecology. On the subject of speculums our author is enthusiastic over the use of Sims', saying: "Learn the use of Sims' speculum, not by personal labor and experiment, but from one who is fully master of it; have at your disposal a trained nurse, and persevere with the method for three months, and you will indorse the statement as to the vantage ground which you will occupy."

Particularly do we commend the methodical manner in which our author treats of any subject, giving the anatomy of the parts, the causes of disease, symptoms, differentiation, course and duration, with the treatment.

Toxicological Studies, on Cocain, Veratria, and Gelseminum. By I. OTT, M. D., of Easton, Penn. Lindsay & Blakiston, Publishers.

These studies were made for the purpose of showing the effects of these substances on the nervous and circulatory systems of inferior animals, giving sphigmographic tracings and other results observed by the author while making his experiments.

We have received the prospectus of another medical journal—*The West Virginia Medical Student.* It is to be published monthly at Wheeling. James E. Reeves, editor and proprietor.

The Complete Hand-book of Obstetric Surgery. By CHARLES CLAY, M. D., Manchester, Eng. From the third London edition. Philadelphia: Lindsay & Blakiston, Publishers. For sale by Robert Clarke & Co. Price $2.25.

We find in this little book a very concise and well-written description of all surgical obstetrical operations, including version, operations with the forceps, vectis, blunt hook, etc.—one chapter being devoted to the use of chloroform. As a book for reference in case of emergency, it is of real value.

The Building of a Brain. By EDWARD H. CLARKE, M. D., author of "Sex in Education." Boston: James R. Osgood & Co., Publishers. For sale by Robert Clarke & Co. Price $1.25.

The executive committee of the National Educational Association requested the author of this little work to prepare a paper to be read at one of their meetings, on the "Education of Girls." How ably that committee has had their request granted, can only be known by a careful reading of this little book, which, from the beginning to the end, is full of just the kind of information that every intelligent person should possess. Our author takes the ground that "the organs whose normal growth and evolution lead up to the brain, are not the same in men and women; consequently, their brains, though alike in microscopic structure, have infused into them different, though equally excellent qualities. If it were not so, sex would be a myth—men and women would be identical." "But if the methods of education render abnormal any part of the body, or interfere with any function, there will not only be damage to the part disturbed, and friction in its function, but the brain will suffer just in proportion to the importance of the organs disturbed, and the amount of the disturbance."

"One of the indispensable objects of education is to build a brain, and to build one of the right sort. In this architecture, schools and colleges play an important part. Their methods may aid or obstruct nature's process of building. Especially is this true with regard to American female education, which has looked upon a girl as if she were a boy, and trained her as if she were to have a boy's destiny."

"Appropriate exercise of an organ aids its development, and increases its power. The normal performance of a function strengthens and develops the organ that performs it. Brain exercise—cerebration—strengthens and develops the brain. I presume we have only an imperfect conception of what the human brain will yet attain to. Compared now, as an instrument, with what it will be ages hence, when both men and women are appropriately educated—when brains shall be built out of masculine and feminine organizations, that have been appropriately trained, and from which hereditary evils have been eliminated, century after century, by the survival of the fittest—the brain of to-day, compared as an instrument with that brain of the future, fit for the use of a god, is as rude and imperfect as the lenses of two hundred years ago compared with the microscopes of the present day. It is the duty of our systems to evolve such brains."

"Study and student-work aid this evolution; but as we have seen, they are not the only factors of brain-building." "But the brain is evolved from the organization, and unless the latter is normal, the evolution is imperfect. In nature's order, the nervous system of an individual is the last to attain its full development; and of the nervous system, the cerebral ganglia reach maturity later than any other part. Obviously, the latter should not be put to work until they are capable of labor. Without exercise, an organ will attain little or no development; excessive or premature exercise will monstrously develop or abort it, in either case to the injury of the organism."

The above extracts are much more fully developed by the author, and we can not doubt but that the work will be of great benefit in turning the popular mind into a correct channel in regard to the proper relation of the sexes in the important matter of education.

The Fourth Volume of the Transactions of the Pathological Society of Philadelphia, containing the Report of the Proceedings for the years 1871–72–73. Edited by JAMES TYSON, M. D. Printed by J. B. Lippincott & Co.

These Transactions have heretofore been published only in the bound sheets of the American Journal of Medical Sciences, in which they were originally printed. We congratulate the society on the change adopted, and the really valuable work they have given the profession in this carefully systematized and complete volume of Transactions. The discussions are generally omitted, and only matter in the shape of papers and well-digested reports admitted. The reports of cases and illustrations are admirable, and should be read and seen to be appreciated. Hereafter the society expect to publish a volume annually.

Surgical Emergencies, together with the Emergencies attendant on Parturition and the Treatment of Poisoning. By WILLIAM PAUL SWAIN, F. R. C. S. Philadelphia: Lindsay & Blakiston, Publishers. For sale by Robert Clarke & Co. Price $2.00.

This manual is a most excellent compilation from the best and most recent works on surgery, and gives very tersely directions for the immediate treatment of the various emergencies which the general practitioner may be called to treat at any moment. A chapter is also devoted to emergencies attending parturition, and one on the treatment of cases of poisoning. The chapter on antiseptic treatment, written by Dr. Bishop, gives full and complete directions for effectually carrying out this method of treating open wounds, especially as used by Prof. Lister, of Edinburgh. The illustrations are excellent, and the typography all that could be desired.

The Mothers' Hygienic Hand-book, for the Normal Development and Training of Women and Children. By R. T. TRALL, M. D., author of "Hydropathic Encyclopædia," and eleven other books, with an etc. attachment. New York: S. R. Wells, Publisher. For sale by Robert Clarke & Co. Price $1.25.

This little work is largely compiled from standard works on diseases of women and children, with some very happy experiences of the author. He says: "For more than twenty years I have been in the habit of treating women during confinement. Some of these were first cases; others suffered greatly in one or more previous labors; but in no case did any one of my patients suffer severely. In most cases, although the labors were energetic, the pains were very slight, and in all cases the sufferings were extremely trivial as compared with those of women generally. And when I add that the same results have attended all whom I have advised and attended in private practice, the reader may be prepared to appreciate the motives which have induced me to write this book." If such were truly the case, our author should have written his book long ago, and made known the cause of his remarkable skill and really good fortune. And yet we regret that we are compelled to say, that all the valuable information contained in his book may be found in any of the standard text-books on diseases of women and children.

Twenty years' professional practice, and never a difficult labor; and but few cases where pain accompanied the labor! Well, such, we are sorry to say, has not been our experience; and we are inclined to the opinion that the author did not attend very many cases during those twenty years, or his experience would have been somewhat different.

We are in receipt of the first numbers of the *Archives of Dermatology,* edited by L. Duncan Bulkley, and published by G. P. Putnam's Sons, New York. There is scarcely any subject in medicine that is less understood by the general practitioner than skin diseases, and for that reason we gladly welcome the advent of a journal especially devoted to a diffusion of knowledge of these often troublesome diseases, and which are troublesome only because of a lack of knowledge of the disease and correct mode of treatment. The number before us is a credit to the editor and publisher, as they have both done their work in a manner worthy of veteran hands. The journal is published quarterly, on tinted paper, 96 pages in each number. Terms $3.00 per annum.

Essentials of the Principles and Practice of Medicine. By HENRY HARTSHORNE, A. M., M. D. Fourth edition, revised, with one hundred illustrations. Philadelphia: Henry C. Lea, Publisher. For sale by Robert Clarke & Co. Price $2.30.

This hand-book has met with very general acceptance by the profession. After a careful examination of the work, we are surprised at the large amount of really useful matter that it contains, in fact we found nothing else.

Any practitioner will find it a convenient book to have in a library. Full directions for the use of all modern instruments that are commonly used as aids in making a diagnosis are given.

Obituary.

At a meeting of the Miami Medical Society, held at Dr. H. A. Langdon's office September 17, 1874, the following resolutions were adopted:

WHEREAS, An All-wise Providence has seen fit to remove by death our friend and brother in the profession, Dr. JEFFRIES A. BLACK; therefore,

Resolved, That in the decease of our brother, this association has lost one of its most earnest, efficient, and valuable members; his patrons a safe and judicious medical adviser; his family a kind husband and affectionate father, and the community at large a generous, upright, honest man;

Resolved, That this society extend an expression of its sympathy to the widow and children of the deceased, and that a copy of these resolutions be sent them by the secretary;

Resolved, That a copy of these resolutions be forwarded to the LANCET AND OBSERVER, and *The Clinic*, for publication.

H. A. LANGDON,
R. SHAW,
S. L. GREEN,
H. L. DONHAM,
Committee.

GEORGE CONNER, *Secretary.*

Henschel on Acute Ergot Poisoning.—Dr. Henschel reports a case in the *New York Medical Record* for September 1, 1874, where thirty minims of Squibbs' fluid extract of ergot were given by mistake to an infant. Soon afterward, there were severe abdominal pains, recurring every fifteen minutes, and lasting hardly sixty seconds. There were slight tetanic contractions of muscles of face and extremities. Diarrhea set in four hours after administration, and continued fourteen days. He believes that this case proves that it is the uterine contractions, and not the ergot, that destroys the fetus during labor.

THE CINCINNATI

LANCET AND OBSERVER.

J. C. CULBERTSON, M.D., Editor.

VOL. XVII.—DECEMBER, 1874—No. 12.

Dr Hays

Original Communications.

Art. 1.—Two Cases of Fracture of the Cranium, and one of the Facial Bones; illustrating the Importance of Early Removal of Spicula of Bone.

By H. CULBERTSON, M. D., Assistant Surgeon U. S. A., Retired, Zanesville, Ohio.

July 20, 1874, Wm. M——., æt. 41, was kicked by a horse in the left temporo-frontal region. On examination, it was found that the external orbital wall (the sphenoid bone) and the external angular process of the supra-orbital ridge were fractured. The fracture was compound and multiple, and the fragments pressed inward upon the eyeball. The left eyeball was much protruded, and the eyelids ecchymosed. The patient was insensible from the moment the injury was received. His pulse was 85, small and feeble, and his extremities cold. The left pupil was insensible to light; the right, responsive. There was no stertor. During July 21, it was observed that he was growing comatose, and that his pulse became slower and slightly more full.

At 1 o'clock P. M., Dr. Safford, who had the case in charge, called a council, composed of Drs. Hildreth, Ball, and myself. The council agreed that the case was one of mixed concussion and compression of the brain, and unanimously concurred in the opinion that an operation should be performed, with the view of removing the depressed portions of bone at the seat of fracture. Dr. Safford designated the writer as the operator.

At 2 P. M., July 21, the patient was chloroformed, and the operation performed, a free incision being made through the external lacerated wound, and parallel to the zygoma, and about one inch above that process of bone. Six small portions of depressed bone were removed—some loose, others attached.[*] During the operation, dark, fluid blood flowed freely from behind the eyeball and from above the orbit. The operation occupied in its performance about twenty minutes. The wound was gently washed out with lukewarm water, and left open and dressed with pledgets wet with cold water. It was observed, after the effects of the chloroform had passed off, that there was less somnolency, and that his extremities were less cold.

In several days, the wound began to discharge pus and blood, which, in a few days more, became purulent. The eyeball sank back more after the operation. The wound continued open during the entire period of the duration of the case. Early in the case, a carbolized poultice was applied to the wound, and the latter was often washed out with a weak solution of carbolic acid.

He was given internally quinia, tr. iron, and chlorate potassa. In about four weeks he was able to go out, when he took erysipelas in the wound, head, and face, but was cured of this with above remedies, and the local application of hyd. bi-chlorid. gr. iii; alcohol, q. s.; solv. carbolic acid, ℈i; glycerine, ℥i. Later in the case, he suffered from dysentery, which was promptly relieved. He is now well. Wound closed; sight of the eye normal.

Case 2.—A boy 8 years of age was kicked by a two-year old colt, producing a multiple fracture of the right internal angular process of the orbital ridge, extending upward and outward on the frontal bone, and backward into the supra-orbital plate. Dr. Ball was called to the case, and dressed the wound, closing it with sutures. In two hours, it was reported to the doctor that the child had some evidences of convulsions. On visiting the case with the doctor, we found some symptoms of compression, and decided to remove the fractured bone. The doctor opened the wound, and removed three portions of bone from the region mentioned. These fragments were depressed. The membranes were lacerated, and the brain exposed. The wound was left open and dressed with cold water. After the effects of the chloroform had passed off, the coma was less marked. This case did well. In two or three days, the little fellow was sitting up in bed, and seemed free from pain and suffering. The recovery has not been interrupted by any complications, and he is now about well, and wound nearly closed.

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[*] Four of these portions, when united, measured 1 x ¾ inch (other two lost). The fracture communicated with the middle fossa of the cranium.

Case 3.—A man, æt. 35, received an injury in an altercation, from a blow given with a roughly broken stick. On examination, we found a multiple fracture of the left nasal process, high up, which involved the inner orbital plate and the lower portion of the frontal bone where attached to the nasal process. Some fragments of wood were removed, and five portions of bone, and the wound dressed with a compress, and, over all, cold water.

No complications occurred in the case, and the wound closed in about three weeks.

It may not be improper here to refer to authorities upon the propriety of removing spicula of bone from the cranium in such cases.

Ashhurst, in his Surgery, p. 316, says: "In cases of compound fracture (of the cranium), loose fragments should be removed." And again, at p. 318, "In cases of non-impacted fracture (cranium), the rule is to remove loose fragments, and elevate the remainder."

Prof. Gross, in his Surgery, page 147., vol. 2, says: "The proper treatment, in compound fracture, is to elevate the depressed bone, and to remove any loose or partially detached pieces, this plan being adopted whether there are any symptoms of compression or not. The operation should be done at once."

Prof. Hamilton, in his Surgery, p. 528, says: "In a compound fracture with depression of both tables, and with symptoms of compression, prompt surgical interference is invariably demanded." Says the elevator and forceps only are needed in a majority of such cases.

In the surgical section of volume 1 of the Medical and Surgical History of the War, p. 261, Dr. Otis enumerates 385 instances of removal (for gunshot fracture) of fragments of the skull. Of these, 145 died, or 37.6 per cent. mortality only.

G. J. Guthrie, in his "Commentaries," says, in gunshot fractures of the cranium, "the broken portions of the bone may, in general, be removed by means of forceps or saw (at once)," p. 347. Again, at p. 348, in perforating wounds of the brain, says the splinters of bone should be removed.

MacCormac, in Notes and Recollections of an Ambulance Surgeon, p. 65, says: "But where there is an external (gunshot) wound, the case is different; but even here, I question much if the surgeon ought to do more than simply remove such loose fragments (of skull) as can readily be got at."

In the first Medical and Surgical Reports of the Boston City Hospital, p. 545, it is stated that of six fractures of the vault of the cranium, in which the bone was elevated or sawed, the mortality was 66 per cent. And, at p. 546, it is claimed that instrumental interference did not alter the general average of fatality of injuries of the head (skull).

Geo. W. Norris, in Liston's Surgery, says, p. 43: "When, however,-depressed bone exists in connection with wound of the soft parts, the trephine or elevator should be at once used, whether symptoms of compression be present or not; as, in these cases, experience proves that the depressed bone generally occasions inflammation of the brain and its membranes."

Fergusson, in the fourth American edition of his Surgery, says, p. 409, in compound comminuted fracture of cranium: "Speaking of loose fragments, here, I think, there need not be a doubt about the propriety of removing these fragments, as they can only act as sources of irritation."

Skey, in his Operative Surgery, says, p. 400: "On the other hand, Dr. Pott and his predecessors consider the presence of depressed bone (skull), although unattended by symptoms of compression of the brain, to be a full justification for interference (removal of fragments, or even the use of trephine)."

Prof. Henry H. Smith, in his Operative Surgery, vol. 1, last edition, p. 548, recommends even trephining, in depressed fracture, where there are symptoms of compression, and whether there is or is not an external wound.

Syme, in his Principles of Surgery, edited by Maclean, p. 453, speaking of punctured wounds of the cranium, says: "No fracture of the cranium is so dangerous, and that this fracture ought always to be regarded as requiring an immediate operation. In performing this, it is scarcely ever necessary to convert a simple fracture into a compound one, as the bone is, in almost every instance, exposed by the blow that caused the injury. In general, the opening is sufficiently large to allow the broken pieces to be picked out; but sometimes it is necessary, for this purpose, to remove a circular piece of bone with the trephine."

In Cooper's Surgical Dictionary, vol. 1, p. 467, the author cites Mr. Potts' view, "that loose, splintered portions of the cranium, when quite detached, and already in view, in consequence of the scalp being wounded, ought to be taken away, no one will be inclined to question."

O. Heyfelder, in his Traité des Résections, by Boeckel, p. 252, says, among other indications for resection (even) of the bones of the cranium, are, "recent fractures with depression upon or penetration of the substance of the brain by the fragments of bone."

Holmes, in his Surgical Diseases of Children, p. 246, says, in children, "if, however, a compound fracture be much comminuted, it is, no doubt, desirable to remove fragments which must ultimately be thrown off, particularly if they are depressed below the skull."

Prof. Miller, in his Surgery, p. 61, advises the removal of fragments of bone, or trephining the cranium in fractures of the skull, if compression exist; but in punctured fractures, advises to operate at once.

Wm. S. Savory, F. R. S., in a recent lecture at St. Bartholomew's Hospital, London (see Lancet, August 1, 1874, English ed., p. 147), advises that where there is depression of fragments of bone and symptoms of compression, even in a simple fracture, to cut down and elevate or trephine, and adds that where the fracture is compound we rarely hesitate to operate. He thinks too much stress is laid upon the question of whether the fracture be simple or compound; and states that the dangers of an incision are overestimated in the simple fractures, and the perils of compression underestimated in the latter form of these fractures.

Paulus Aegineta, in his fourth book, article Fractures, says: "If (the skull) broken into small pieces, these also are to be extracted with a convenient instrument." And he refers to Galens' advice, that "when the bone is greatly bruised, it is to be taken out entire."

Erichsen, in his Surgery, edition by J. Ashhurst, Jr., p. 347, advocates, even in depressed and comminuted fracture of the skull, where there is no division of the scalp, and there are symptoms of compression, "to incise the scalp and remove the fragments of bone, if detached, or elevate." If there is a wound of the scalp, the bone should be removed if detached, or elevated if attached.

Gant, in his Surgery, p. 719, says: "Compound fracture (of the skull), with depression, although without symptoms, justifies operative interference, and immediately." He says, "this rule was inculcated by Sir A. Cooper and Sir Benj. Brodie, to prevent intracranial suppuration, consequent on this condition of fracture."

Bryant, in his Surgery, p. 82, says: "In compound fracture of the skull, however associated with depression and comminution of bone, both with or without brain symptoms, the surgeon ought to remove loose pieces of bone, and may elevate the depressed ones, when it can be done with the elevator without difficulty; for splintered bone is always a dangerous body, when in contact with the dura-mater."

Art. 2.—Case of Amalgamated Placenta.

By E. A. EAKINS, M.D., Ironton, Ohio.

I wish to report a case which came under my observation last July.

On the 26th of July, 1874, I was called to Mrs. W. C. A., aged thirty-six, whom I found in her seventh confinement. She had been having slight labor-pains most of the day, and after taking some warm tea, about 6 P. M., she began to have violent pains, and when I arrived, about 6:30 P. M., I found the feet and buttocks of the child to the world. A few more pains completed the delivery. I waited a half-hour, and tried to remove the placenta; but could not do so, as the os was pretty firmly contracted. I waited an hour and a half longer, and made every effort I could to remove it; boring through the os with my fingers until I encountered a constriction, which could not be overcome. I then concluded to wait until morning, when I made another effort with no better success. There being no hemorrhage of any consequence, I concluded to see what nature would do.

After the lapse of forty-eight hours I called Dr. Jas. Moore, who administered chloroform. I then made an effort to remove the placenta, and found, surely enough, we had an *hour-glass* contraction; but after overcoming this, and having my hand fully in the uterus, I could find no beginning to the placenta, and very little of a mass to correspond. What there was, laid on the right posterior side of the womb, and seemed to bulge up, from contractions, in a knot that could be grasped readily in the hand. There seemed no way left but to open, if possible, this bunch in the center, and remove from within outward. I accordingly began to pick into the mass, and, having made an opening with difficulty, I succeeded in bringing a piece away about one and a half by three-fourths of an inch in size. This was as perfectly organized as the tissue of the womb itself, with no decomposition whatever. I tried to remove more, but could not succeed. Dr. Moore then made an effort, but could not succeed. We then concluded to leave the matter entirely with nature, and support the patient, thinking further manipulations would do more injury than good. I accordingly visited her the following morning, ready to act on the defensive.

I quote from my memorandum.

July 28, 7 A. M. Had a chill at 1 A. M.; very hard; lasting one hour. Pulse 150; quick and feeble. Slight headache. Tongue coated. Considerable tenderness over the womb. Ordered hot fomentations, with antim. et pot. tart., tr. digital., spts. nit. acet. internally, and beef essence.

7:30 P. M. Pulse 140; quick, but a little stronger. Had another chill about 11 A. M., not lasting so long. No hemorrhage. Tenderness nearly gone.

It being rather soon for peritonitis, and not sufficient symptoms to bear this diagnosis, I regarded them of a purely nervous character, and accordingly gave the following prescription: ℞ Hoofman's anodyne, ℥ij; elixir val. ammonia, ℥ij; bromide of potash, ʒiij; aqua dist. ℥ij. Mix. Dose—one tablespoonful when symptoms of chill begin.

July 29, 9 A. M. Pulse 120; soft and full. Tongue clean. Skin moist. Continued the nitre every three hours, with beef essence, and "elixir beef, wine, and iron" for tonic.

8 P. M. Patient quiet. Pulse 110; soft and full. Skin moist. Considerable tenderness over bowels and womb. Slight headache. No hemorrhage. Ordered hot fomentations to tender parts, with nitre and digitalis internally. Continued beef essence and tonic. Had symptoms of chill at 12 M., which were checked with the anodyne.

July 30, 9 A. M. Pulse 120; quick and small. Passed a restless night. Has considerable tenderness over womb, with a very irritable stomach. No hemorrhage. Treatment continued.

3 P. M. Pulse 140. Conditions about the same, with more tenderness. Ordered hop fomentations.

8 P. M. Pulse 126. Conditions nearly same. Gave hypodermic injection of one-third of a grain of sulphate of morphine.

July 31, 8 A. M. Pulse 132. Tongue clean and moist. Skin in good condition. Passed a good night from the morphia. The cord passed from its attachment, with great fetor. The patient has a haggard and worn-out appearance.

2 P. M. Pulse 150. Skin dry. Tongue dark and slightly dried. Great tenderness over bowels and womb. Discharge very scanty and offensive.

9 P. M. Pulse 140; full and bounding. Skin more moist. Less tenderness. Discharge nearly ceased. Ordered whisky every two hours, with vin. antimon. every hour, twenty-five drops. Also the following: ℞ Hydr. bichlor. gr. j; potass. iod. ʒij; aqua dist. ℥ij. Mix. Sig. one teaspoonful every four hours, in a wine-glass of water.

August 1, 2:30 A. M. Pulse 140; thready. Skin cool and clammy. Expression cadaveric. Had a very profuse and sudden discharge from the bowels, which left her terribly prostrated; but has less tenderness since. Ordered whisky freely, with tr. verat. viride, four drops every four hours.

9 A. M. Pulse 126. Tongue coated white. Skin cool and very yellow; covered with clammy perspiration. Tenderness slight. Discharge more free. Order chlor. potash every two hours with beef essence.

8:30 P. M. Pulse 136. Conditions same. Resting pretty well. Skin in a little better condition.

August 2, 9 A. M. Pulse 128. Weak. Skin cool and moist. Very little tenderness. Lochial discharge again scanty.

3:30 P. M. Pulse 110; very weak and intermittent. Patient is considerably exhausted; with a cadaveric appearance. Continued whisky, with digitalis and beef essence, and potash mixture.

8 P. M. Pulse 120; some fuller, but still intermittent. Condition about the same.

August 3, 2 A. M. Pulse 120; regular and full. Found the patient having strong contractile pains, which continued about three hours, expelling a few shreds of placenta. Skin moist and cool, with tongue furred. Very little tenderness.

10:30 P. M. Pulse 128; regular, but weak. Skin in good condition. Bowels move slightly from laxative given in the morning. Tenderness nearly gone. More *shreds* of placenta, or rather *threads*, the size of large twine, two inches long, and two or three in number.

August 4, 9 A. M. Pulse 120; regular and full. Skin moist and cool. General condition much improved; but the jaundiced appearance of the eyes and skin shows great absorption of biliary matter.

12:30 P. M. Called in great haste, with an explanation that patient is dying. She sank away insensibly; but had slightly revived before I arrived. She became very blind and dizzy, with nauseous stomach, then insensible. These symptoms I attributed to the biliary derangement. Accordingly ordered chlor. potash and quinia sulph., with tr. prun. Virg. and whisky. Continued beef essence and beef tonic. Pulse 122; weak.

9 P. M. Pulse 122; regular. Condition comfortable. Feeling much improved since noon.

August 5, 9 A. M. Pulse 114; full and regular. General appearance much improved. Skin clearer; moist and cool. No tenderness whatever. Bowels in good condition. The lochia, which has been scanty and of dirty brownish color, has become more natural and abundant, with *slight* hemorrhagic tendency.

8:30 P. M. Pulse 122. Tongue clean. Skin in good condition. Feet and legs slightly numb. Ordered hot applications to feet and legs. Patient called for some tea and crackers.

August 6, 2 A. M. Had another sinking spell, but rallied well. Skin moist. Pulse 120. Flow continues.

9 P. M. Pulse 106; regular. Tongue furred. Skin moist and cool. Condition improving. Flow ceased. Ordered potash mixture again.

August 7, 10 A. M. Pulse 102; full and regular. General condition much improved. Lochia natural. Called for tea and crackers.

August 8, 8:30 A. M. Pulse 98; full and regular. Tongue clean and irritable. Rested well through the night.

9 P. M. Pulse 98; small and intermittent. Discharge resumed. Accordingly ceased administration of potash, and ordered half an ounce of whisky every hour, with thirty drops tr. prun. Virg.; beef essence, and quinia sulph. one and a half grains, every four hours.

August 9, 9 A. M. Pulse 84; very weak and intermittent. Tongue clean. Lochia scanty.

3 P. M. Summoned to patient on account of paralysis of left side, which was complete. Pulse 80, and *very* intermittent. Ordered hot fomentations of water and mustard applied to side and

limbs; whisky freely, with two grains cit. of iron and one-fiftieth of a grain of strychnia every four hours.

9 P. M. Pulse 94; full, soft, and regular. Is resting tolerably easy, except intense aching of ankles, which I bandaged. Skin very moist. The paralysis has about passed off, and she calls for something to eat.

Recovery was gradual from this to the 22d, when I discharged her. I would say, recovery was interrupted by a slight dysentery and a slight lung trouble.

Remarks.—There are a few points of peculiar interest in this case which I propose to mention, requesting comments from the profession.

I have had a great many cases of *retained* and *adhered placenta;* but I prefer to call this a case of "*amalgamated placenta,*" if we recognize such a name, and I believe we do, as I find two cases mentioned in Churchill's Obstetrics. In mention of this case to an aged and very reputable teacher of this subject, he said he regarded it as simply an *adhered placenta.* Now, as much as I regard the opinions of those having given the subject their life-study, I beg to differ in this opinion. I believe we should class as "*adherent placentas,*" those *adhering* and *finally* coming away; as "*amalgamated,*" those *perfectly* adherent, having *no points of detachment,* and *never coming away.*

Now, I believe this case in point to be an "amalgamated" placenta, for these reasons: 1. It was much smaller than I ever knew one at "full period;" 2. I could not find a beginning to membrane, or even origin of the fibers of the placenta; 3. When I succeeded in opening it in its center, I could only bring away what naturally *twisted* off by the greatest effort, and it was *perfectly organized tissue,* firm as beef, the vessels appearing more like ordinary blood-vessels, and very contracted; and 4. It *never* came away, there now being no *tenderness* over the womb, and no *discharge.* I will here state the discharges were *never* much more than natural, and part of the time *none.*

Another point in the patient is: During her fourth confinement the placenta adhered *slightly;* the fifth more; in the sixth still more, in fact remained two or three days, until we have the seventh case before us. Question: What are the scientific reasons for the gradual increase of adhesions?

Again, the paralysis in this case was similar to the same trouble she had in her sixth confinement, and occurred the same number of *days* and (I think) *hours* after labor. Have you any explanation?

One thing more and I close. In this lady's sixth confinement the lochia ceased, and all the symptoms of puerperal fever set in; and, after trying every other means, I resorted to the iodide of potash, with bichloride of mercury, and upon the administration of a few doses the flow appeared, and she began to improve immediately. In her last confinement the discharge ceased several times, and was readily re-established by the same treatment. And I would say, ever since 1871, I have resorted to it in the cessation of the lochia, and always with success; sometimes, however, without the mercury.

Art. 3.—Case of Enlarged Prostate, followed by Cystitis.

By H. SANDERS, M.D., Oxford, Ohio.

Mr. R., aged 68; had retention of urine. Came on suddenly after riding home on a wet cushion. Has had slight difficulty in urinating for over a year last past. On examination found enlarged prostate, to which I attributed the difficulty. Placed my patient under opiates almost to narcotism but could not enter the bladder with a catheter. Had warm fomentations to perineum and cold applications to pubes.

Next day, 28th of September, entered the bladder and drew off three pints of urine. Saw my patient four days in succession; and having, in that time, instructed the patient's son to relieve the father, left him, with directions to be called if required.

All went well till Saturday, the 10th of October, when the patient had a severe rigor one hour after the use of the catheter. On arriving at the bedside I learned of the rigor at two o'clock, and had cause to conclude the nurse had used an imperfect catheter and wounded the canal near the prostate gland. Patient much exhausted; rallied somewhat under the use of whisky and opiates. Endeavored to enter the bladder, but did not succeed. Counsel had diagnosed cystitis. Used leeches and fomentations, also atropia, with the hope of relieving spasms if present. Tried catheters of all sizes and all curves, but could not enter the bladder.

Now, having had a case, a year since, identical with this one, I had observed certain results from my manipulations for the relief of the patient, and which now caused me to suggest to Dr. W. Huber, counsel in this case, the propriety of throwing air into the bladder; and from my reasoning on the project, together with his idea that air in the urinary cyst could not do harm, he consented to test my proposition. We put it in practice, and had the pleasure of relieving our patient of the retained urine, which was about five half-pints. We washed out the bladder, there being a deposit thrown down from long retention of urine.

A course of treatment was agreed on, chiefly anodyne and supporting, and the patient seemed as though he might stem the tide; but no, he gradually sank, and died just three weeks from the day of attack.

The autopsy revealed intense cystitis, with enlarged prostate gland, measuring two inches and three-eighths across in any direction; some laceration of urethra in neighborhood of gland; urethers intact; walls of cyst thin and soft as usual. A stillicidium had followed our emptying the bladder by the injection of air, so that the catheters were not required at any time thereafter. There was a small amount of bloody urine in the bladder, and a portion of air, but whether it was a portion of what was thrown in, or was gas from the gangrene, could not be determined.

And now, Mr. Editor, should we eventually find a resource in such a case as I have very briefly described, that shall occasionally supersede the use of the murderous catheter, I trust that those having opportunity to determine will hurry it before the profession at large.

[In two cases of enlarged prostate, where we had difficulty in passing the catheter, the trouble was greatly mitigated by first using an injection of warm olive oil.—Ed.]

Art. 4.—Case of Pyramidal Cataract, not following Ophthalmia Neonatorum—Double Iridectomy inward—Excellent Visual Results.

By S. C. AYRES, M.D., Cincinnati, Ohio.

Pyramidal cataract is generally described as one form of anterior capsular cataract. While it may be congenital, it is usually supposed to result from ulceration and perforation of the cornea, which take place during the progress of ophthalmia neonatorum. After the perforation occurs, the lens naturally comes forward in close proximity to the cornea. Plastic lymph is thrown out from the walls of the ulcer, and a little nodule of this adheres to the center of the capsule of the lens, partly because the rest of the lens is protected by the iris, and partly because the ulcer is generally central and not peripheral. When the ulcer fills up sufficiently to retain the aqueous, and the anterior chamber becomes re-established, there remains on the cornea an opacity more or less extensive, depending on the size of the ulcer. In many cases, this opacity disappears, not leaving a trace behind, while in others it remains permanently.

The changes which take place in the lens and its capsule are various. There may remain only a single opaque spot on the capsule, or there may be two or more white dots on it, while the balance of the lens remains perfectly clear. In rare cases we see a well-defined cone or pyramid projecting from the anterior surface of the lens into the aqueous. Occasionally, we observe that the deeper laminæ of the lens, around the central opacity, are opaque, while the margins of the lens are transparent.

This theory of the deposit of lymph upon the capsule has found an opponent in the person of that very close observer, Mr. Hutchinson, of the Royal London Ophthalmic Hospital. He advances the theory "that the mere proximity of inflammatory action on the surface of the conjunctiva and cornea suffices to disturb the nutrition of the lens capsule, and to produce deposits." This theory, to say the least, appears reasonable, and may account for many of the cases where no trace of opacity of the cornea remains. The fact that the convexity of the lens is, in the majority of cases, not at all perceptibly altered, would rather argue against the deposit of lymph on it.

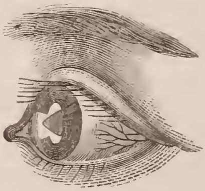
One great difficulty in coming to any definite conclusion, in many of these cases, is that the early history is entirely wanting. There is no positive evidence of purulent ophthalmia in infancy, and yet we find pyramidal cataract present, and it is impossible to say whether there has or has not been ulceration and perforation of the cornea. It will only be by carefully observing the results in cases of purulent conjunctivitis that we will be able to decide the question satisfactorily.

Now, in the case illustrated in the wood-cut, we have a beautiful representation of a rare form of pyramidal cataract, and the history is clear and reliable, showing that its development was not preceded by ophthalmia neonatorum.

M. C., æt. 3, a healthy, well-developed child, has pyramidal cataract in both eyes. She has never learned to walk, simply because she can not trust herself alone, and not because her limbs are not well developed. She is the eighth child in the family, and all the preceding ones are healthy, and have sound eyes. From Dr. E. Jennings, Dayton, O. (who referred the case to us for treatment), we have learned that the child never had purulent conjunctivitis, or any inflammation of the eyes sufficient to attract his or the mother's attention. As he has had an opportunity to see the child occasionally, from her birth up to the present time, we may consider the question of purulent ophthalmia settled, for it would not be likely to escape his careful observation. The defect in the child's eyes was not noticed until several weeks after she was born.

The eyeballs are full and well developed, the corneæ perfectly clear, and the irides very active. The cones or pyramids which project from the central portion of the lenses seem to come forward almost to the posterior surface of the cornea. The bases of the cones fill the pupil as it appears at ordinary dilation. Around the base of each cone is a narrow ring of opacity in the lens, but beyond this it is perfectly transparent. The child sees best by holding objects to one side or the other; but her sight is very imperfect.

The question of treatment in the case was one of great importance. The safest and best plan was to be chosen, and this was decided to be an iridectomy inward. It was presumable that the fundus was sound, from the fact that the child did not roll her eyes round as if she was blind, but had tolerably good control of them. Discission was contra-indicated, because so much of the lens was transparent. Violent inflammation would most likely have followed such an operation, and the eye have been lost in consequence.



An iridectomy was indicated, first, because it was safest; and second, because if the lens should ultimately become opaque, it would not interfere with a subsequent discission or extraction.

Dr. Williams accordingly operated on both eyes, making an iridectomy inwards, as it was most likely to afford the best visual results in that direction. Very little irritation followed the operation, and in a short time the patient returned home.

In a letter received from Dr. Jennings about fourteen months afterward, he says: "I to-day availed myself of the first opportunity (since the receipt of your letter of inquiry) to visit your patient, Mamie Conover. I found her in great glee, running about the room, picking up small bits of white cloth from the floor, and depositing them in a hole in a chair where a round had been removed. In examining any article closely, she brings the object quite near the eyes. My impression is that she sees best with the left eye, and is constantly improving."

One object in presenting this case was to show the excellent results following iridectomy. It is attended with little or no danger to the eye, and if the lens remains transparent, as it may, gives better visual results than could be expected from the operation of discission. The child is still quite young, and as she grows older will be able to control her eyes better.

The remarkable improvement in her vision was evinced by the fact that she soon learned to walk after the operation.

In this case there is satisfactory evidence that the child never had purulent ophthalmia nor any other inflammation of the eyes sufficiently severe to attract the attention of the mother. We are compelled, then, to abandon the theory of lymph deposit, and also that of the disturbance of the nutrition of the lens capsule from proximity of inflammatory action.

Are we not, then, forced to fall back upon the supposition that the development of these pyramidal cataracts was congenital?

In my limited observation these are the only instances of the formation of *cones* or *pyramids* on the anterior surface of the lens, which I have ever seen. I have often observed central opacities of the lens capsule with or without corresponding opacities of the cornea, but in all these cases there was no apparent elevation or alteration in the natural convexity of the lens or its capsule. It remains for observers to draw a line of distinction, if consistent with facts, between so-called pyramidal cataract where the convexity of the lens capsule remains normal, and such cases as the above, where there is a true cone or pyramid projecting from it into the aqueous.

Proceedings of Societies.

CENTRAL OHIO MEDICAL SOCIETY.

The "Central Ohio Medical Society" met in the City Hall in Columbus, October 15, 1874, and was called to order by the president, Dr. P. F. Beverly.

The minutes of the last meeting, at Worthington, on July 2d, 1874, were read and approved.

Dr. J. W. Hamilton read a paper on "Inversion of the Uterus," and reported several cases.

On motion of Dr. C. P. Landon, Dr. Hamilton was thanked by the Society, and was requested to have the paper printed in medical journals.

Dr. F. Norman, one of the essayists, not having a paper, reported a case of chronic albuminuria—male, age 23—complicated with asthma and enlarged liver. The case was discussed by Dr. N. Gay, who made some general remarks on this disease, especially on the pathology and treatment.

Remarks were also made by Dr. J. W. Lewis and others.

The Society then took a recess until after dinner, at 2 o'clock P. M.

A committee, consisting of Drs. J. W. Lewis, C. B. Ferrell, and Z. Guerin, were appointed to examine patients brought before the Society for that purpose, and make a report of them to the Society.

Dr. N. Gay reported a case of fever, resembling typhus more than typhoid. The cause he attributed to a bad state of water, with an unkept milk cellar. This case lead to a discussion of typhoid fever by Dr. J. W. Hamilton and Dr. D. B. Kinsman. Both gave incidents in their experience where typhoid fever was contagious during epidemic.

Dr. Lewis, chairman of committee to examine patients, reported the following cases:

Female; age 49; has a tumor as large as her fist on the right side of her chest above the breast, attached to the clavicle, ribs, and sternum. She also had enlarged glands on the neck. Dr. J.

W. Hamilton removed a tumor from this woman's leg about four years ago, which he thought before removing was fibroid, but found afterward it was cancerous. He considered the present tumor a recurrence of that disease, and would not advise any surgical interference.

2d case: Boy; age 10 years; sick three years. Curvature of the spine, enlarged abdomen, adhesions of the intestines to the abdominal walls; also an enlarged spleen.

Dr. J. W. Hamilton read a paper on "Foreign Bodies in the Air-passages," giving his experience in twenty-two cases. He performed tracheotomy on fourteen cases; on one case twice. All of these cases recovered. He considers the old plan of operating as the only safe and sure practice.

Dr. Kinsman gave his experience. He reported one case in which a grain of corn was expelled three months after it got into the lungs, giving rise to grave lung symptoms, which subsided after the corn was expelled.

Dr. N. Gay reported his experience in these cases, and considered the safest plan to perform tracheotomy.

On motion, it was agreed that Dr. Hamilton's paper be received and published with the transactions of the Society.

On motion of Dr. Landon, the Society agreed to meet in Columbus, on the second Thursday of November, December, and January; also, in the week of the commencemeut of Starling Medical College.

On motion, the Society adjourned.

D. W. CABLE, M. D., *Sec'y.*

CINCINNATI MEDICAL SOCIETY.

October 19, 1874.

Pursuant to adjournment the society met, and was called to order by the first vice-president, Dr. J. P. Walker.

Dr. Taylor reported a case of ovarian tumor with intercurrent pregnancy: Mrs. S., aged 33, four feet two inches high; had a child nine years before beginning of present history; no pregnancy since; menstruation normal; noticed abdominal enlargement in April, 1871, and from peculiar sensations in abdomen in August, which she believed to be motions of child, she was convinced of pregnancy, and expected delivery in January, 1872. The time of confinement having passed without any evidence of labor, in April, 1872, Drs. White, Kearney, and Taylor made an examination of patient, resulting in diagnosis of ovarian tumor of right side, the uterus being in normal, unimpregnated condition. The ensuing May menstruation was arrested for the first time. During the summer patient increased rapidly in size, and health was much impaired. In December, 1872, Dr. Kearney delivered her of a small, feeble child, probably in the seventh month. Convalescence from confinement was imperfect and slow. The tumor steadily increased in size (the patient objecting to all operative measures), until the present month, when she consented to paracentesis, simply to render her last hours tolerable.

On the 14th inst., the abdomen being then five feet in circumference, Prof. Mussey drew off ten gallons of dark, bloody fluid. The patient died on the 16th inst.

Dr. Mackenzie, who made the autopsy, reported that on section of the abdominal walls, the tumor, presenting the appearance of a large cyst, was found to be adherent, by its anterior surface, to the abdominal parietes, and by its lateral to the intestines. On incising the tumor considerable bloody, serous fluid escaped. Attached to the internal surface of the large cyst were several small ones, some of which contained a peculiar dark-colored, inodorous, semi-solid substance. On the external surface were found other cysts, some containing a serous, others a viscous fluid. The pedicle was broad and flat, and firmly attached, by the results of inflammatory action, to the right broad ligament. The uterus was normal, except that the right cornu was somewhat drawn up, causing some obliquity of the transverse axis. Left oviary and the abdominal organs healthy.

Dr. Comegys reported a case presenting all the symptoms of retention of urine. A tumor was found in the hypogastric region, which he thought to be the distended bladder. Attempts to catheterize were unsuccessful. He suspected uterine enlargement, which opinion was also held by Dr. Blackman, who saw the case in consultation. It was afterward found to be an ovarian tumor enveloping the uterus, which, by pressure on the bladder, obstructed the introduction of the catheter, gave rise to the constant desire to void urine, and led to the mistake in diagnosis. The tumor being punctured with a small canula a quantity of fluid was drawn off, which resulted in some amelioration of the distressing symptoms.

The tumor was afterward removed by a Southern surgeon, but with a fatal result.

Dr. Holdt reported a case of scarlet fever occurring in a child a second time within eighteen months, the disease being well marked in both attacks.

Drs. Comegys and *Judkins* reported cases of duplication of variola, and Dr. Walker a case of recurrence of scarlet fever.

Dr. W. T. Brown remarked that during the epidemic of scarlet fever last winter, it had been reported that the disease had prevailed but little south of Third street. He now had several cases south of that street.

Dr. Minor said, that judging from the reports of the Health Office, the disease had been more prevalent or more malignant north of Sixth street. He thought the disease was assuming a more diphtheritic character.

Dr. Taylor reported the disease now prevailing, with marked severity, on Walnut Hills. Mentioned as a singular circumstance the fact that the disease was confined to certain localities—prevailing with intensity in some, others being almost entirely exempt.

Dr. Comegys spoke in regard to the sequelæ of scarlet fever, which he believes to be frequently due to carelessness, parents being thrown off their guard by the mildness of the earlier stages of the disease. Is in the habit of warning attendants of danger in all cases, however mild. He thought the convulsions due to uræmic poisoning could be best treated with chloroform, and, after subsidence of convulsions, with digitalis in combination with liq. ammon. acet. and sp. ætheris nit.

Dr. Brunning had treated two mild cases of scarlet fever, which were followed, one by convulsions, the other by bronchitis. The latter patient finally succumbed under the effect of uræmic poisoning.

Dr. W. B. Davis agreed with Dr. Comegys as to the prevalence of sequelæ after mild cases. He also reported a case, showing the occasional rapid and extreme prostration caused by the disease. In regard to prophylaxis, Dr. Davis recommended isolation. Had used carbolic acid as a disinfectant extensively; thought it protected those in the room, and destroyed the nidus of the disease; also used it internally with chlorate potass.

Dr. Comegys thought that in every case of the disease there had been contact with scarlatinous poison.

Dr. Taylor, while believing in the communicability of the disease, mentioned some cases of escape after exposure. He had used carbolic acid with satisfactory results.

Dr. Epstein reported a case of uræmic convulsions following a mild attack of scarlet fever, which was successfully treated with leeches to temples and turpentine enema.

Dr. Judkins had used carbolic acid, by fumigation in the wards of the small-pox hospital; believed it efficacious, as the percentage of deaths was smaller while it was used; had not tried it in scarlet fever.

Dr. Minor had but little faith in disinfectants; doubted their action in destroying the germs of disease.

Dr. W. B. Davis thought experience had demonstrated their efficacy; instanced the cattle-plague in England, where they were used extensively and successfully.

October 26, 1874.

The society met, the first vice-president, Dr. Walker, occupying the chair.

Dr. Holdt, deprecating the action of the Board of Education in granting to the scholars of the public schools only one hour for the noon recess, and being opposed to the plan of long sessions, and to the system of teaching so generally adopted in our schools, expressed a hope that the society would take the subject under consideration and give expression to its views in such manner as might be thought advisable.

Dr. Epstein agreed with Dr. Holdt as to the defects in the present system of teaching; thought the sessions too long, and the noon recess too short, not affording pupils time to eat and properly digest their meals before resuming their studies, and offered the following:

"*Resolved*, That it is the opinion of this society that two hours should be allowed the pupils of the public schools for their noon recess."

Dr. Murphy criticised the school system, particularly in regard to the "cramming process" adopted by too many teachers, which he regarded as but little better than criminal, as it retarded the mental and physical development. From the infant school to the high school too much brain work is required; thought children should have two hours at noon and shorter sessions; thought too much is included in the curriculum of study.

Dr. Mussey advocated an advanced education for all; thought our school system, if properly managed, would be good; that it should be regulated; that some of the defects of the system were due to demands made by parents.

Dr. W. B. Davis offered as a substitute for Dr. Epstein's resolution the following:

"*Resolved*, That in the judgment of the Cincinnati Medical Society, two hours for the noon recess of the public schools is absolutely required for the physical well-being of the pupils.

"*Resolved*, That the proposition to establish one session per day for the intermediate schools can only result injuriously to the health of the scholars."

Which he advocated on physiological grounds.

Dr. Comegys advocated the resolutions of Dr. Davis; spoke favorably of the status of affairs in the high schools and university; thought the school system not as objectionable as generally claimed.

The resolutions offered by Dr. Davis were adopted.

Dr. Mussey moved that a committee of three be appointed by the chair to present a memorial to the Board of Education in the spirit of the above resolutions. Carried.

The chair appointed on that committee Drs. Holdt, W. B. Davis, and Comegys.

The society then adjourned.

November 7, 1874.

The society met in regular session, the president, Dr. A. C. Kemper, in the chair.

Dr. Mussey presented for inspection a ball removed from the skull of a person who had attempted suicide. The pistol was held close to the head, immediately behind the mastoid process, causing a large flesh wound. The opening in the bone was small, and the ball was easily removed therefrom with forceps, upon which fracture and slight depression of the inner table was found, rendering it necessary to use the trephine to enable him to remove the depressed portion, which being removed, the pulsations of the brain were plainly visible. The patient made a good recovery.

Dr. Mussey also reported a case of lithotomy, and presented the calculus for inspection. The operation was performed at the urgent solicitation of the patient. The patient had been catheterized prior to operation, but only a little water was drawn off; nor was there much discharge on entering the bladder, owing to the rigidity of the surrounding tissues, but on removing the calculus there was a very copious discharge of urine. This case terminated fatally in few days.

In another case on which he had operated, after long-continued evidence of stone, there was a profuse discharge of water on removing the stone, followed by the exit of considerable pus. The nucleus of the calculus, in this case, was a piece of iron wire, which the patient said he had accidentally swallowed some time before.

Dr. Mussey also reported the case of a child, two and a half years old, whom he was called to see, in Kentucky. Patient had much pain and difficulty in micturition, On introducing a catheter (to do which it was necessary to slit the prepuce, which was adherent to the glans), he found a stone in the urethra, near the bladder, obstructing the flow. This he attempted to remove with forceps, but not having an instrument of the right curvature he failed to secure it, and was compelled to force it back into the bladder to permit the passage of water. During the following night, in the doctor's absence, another physician was called in, who made repeated attempts to catheterize; but, the stone obstructing the introduction of the catheter, he did not succeed. On the following day, Dr. Mussey found his patient with a penis red and much swollen at a point where the stone is supposed to have been lodged, the result, doubtless, of the attempt at catheterization. Erysipelas supervened, which terminated fatally on the third day.

In this connection the speaker mentioned the prevalence of erysipelas in some parts of the city. He had declined to operate on one patient for stone on that account.

Dr. N. P. Dandridge exhibited a specimen, and gave the history of a case, illustrating some interesting points in the difficulty of diagnosing abdominal tumors.

Charles Grimes, aged seventy-five; hotel porter; family history not known; entered hospital September 1, 1874, complaining of a pulsating tumor in epigastrium, which had been growing for seven months. The tumor is very painful, and over it a distinct bruit can be heard. Died September 10th. Post-mortem examination revealed a tumor in left lobe of liver. The stomach and liver were firmly adherent, and the tumor, softening, had broken into the cavity of the stomach. Projecting into the stomach were softened masses of the growth, which, on microscopic examination, proved to be medullary carcinoma. No disease in other parts of body.

A remarkable feature in this case was the absence of all symptoms of gastric disturbance. Tumor, with pulsation and bruit, seemed to indicate an aneurism. The speaker suggested that if the patient had been examined while on his hands and knees the tumor would have fallen away from the aorta, and there would then have been no pulsation or bruit. This would have been an assistance in diagnosis. Dr. Davis, the attending physician, had rightly surmised the nature of the disease.

Dr. Carson had seen this patient once, and, from a cursory examination, thought the tumor to be an aneurism. Could not make a satisfactory examination, owing to the feeble condition of the patient. Thought it would have been a suitable case, if the condition of the patient had been favorable, for abdominal exploration per rectum, which method, he thought, would have greatly facilitated diagnosis.

Referring to the question of abdominal exploration, he recalled a case which he had reported to the Academy of Medicine, in which it was resorted to satisfactorily, and with but little inconvenience to the patient, a female. He had since seen a male patient with an abdominal aneurism, in which that method of exploration was resorted to, to test the practicability of the procedure. After anæsthetizing the patient, he succeeded, though with more difficulty than in the preceding case, in finding and defining the tumor. Nothing unusual followed the administration of the chloroform or the operation. There was no immediate prostration. The next morning the patient was found in a dying condition. Post-mortem examination revealed rupture of tumor, and some effusion of a seropurulent character in the abdominal cavity, to the right of the tumor, and infiltration down behind the peritoneum. As to the date of occurrence of rupture, the speaker believed it to have occurred prior to the examination of the preceding day, there being no prostration until the next morning.

In this connection he referred to a case reported by Dr. Dandridge, in which death did not occur at the time of rupture of an abdominal aneurism. The patient fainting, plugging of the opening occurred. Forty hours afterward, the plug became detached and a fatal hemorrhage occurred.

Dr. Mussey mentioned a case, which came under his care, of tumor, presenting some of the symptoms of aneurism, as pulsation and bruit, but not fremissement, making diagnosis difficult at first, but fluctuation was eventually detected, and an incision gave exit to a quantity of pus from a hepatic abscess. He found some fatty degeneration and softening around the point of abscess. This patient recovered.

ROTHELN.

READ TO THE UNION DISTRICT MEDICAL SOCIETY, OCTOBER 29, 1874, BY JAS. F. HIBBERD, M. D., OF RICHMOND, INDIANA, PRESIDENT OF THE SOCIETY.

Twelve years ago, a large, genteel tenement house, still standing in this city, was occupied by three respectable families; each family had a child under three years of age; each child was ill at the same moment, and each patient had a reputable doctor—not the same that attended either of the others. Each of the little patients had fever, an exanthematous eruption, and a sore throat. Dr. P. said his patient had measles; Dr. W. declared his patient had scarlet fever, and Dr. H. maintained that his patient was afflicted with roseola, complicated with moderate cynanche. All the patients recovered. Each of the M. D.'s asserted the correctness of his diagnosis. Who shall decide when three doctors disagree? In this instance, the three mothers undertook to reconcile the professional antagonism, by each asserting that her doctor was right and that the others did not know what they were talking about; and the result of this feminine effort was a triangular row, and three ruffled tempers, which were smoothed only by the balm of fleeted time.

Having knowledge of the case attended by Dr. H., I have always, heretofore, been of the opinion that he was right; that his case was roseola, with faucitis; but of the other cases I had only verbal reports from unprofessional persons, and, from such information, fancied the three patients suffered from the same malady.

Nor should we turn up our professional noses in disdain at the three doctors because they, severally, called the same disorder in three patients by three different names. A typical case of roseola, a typical case of measles, and a typical case of scarlet fever may be each diagnosed with speed and certainty; but roseola, with a catarrh of which faucitis is a factor, may be mistaken for either irregularly developed measles or anomalous scarlet fever, without doing violence to his reputation, by a diagnostician of more than average acumen. Let us, therefore, listen with a lenient ear to the expressed opinion of three doctors, two of whom were quite certainly mistaken, and probably all three in error, as we shall see presently.

Very many times since the existence of the cases alluded to, I have met, in my own practice, cases of exanthems, with cynanche, that I was unable to classify to my own satisfaction, until the progress of the disease developed phenomena that led me to what I esteemed a reliable diagnosis.

On the 22d of September, 1873, I was called to O. D., a girl of five years of age. She retired the evening before apparently in her usual health, but during the night was feverish, vomited freely, and when daylight led to closer inspection, her mother discovered the child's face, neck, and chest thickly covered with a bright exanthem, that she feared was scarlatina or, possibly, measles. Early in the forenoon I examined the little patient, and found her with moderate fever, some inflammation of the tonsils, a confluent exanthem or efflorescence, like scarlet-fever eruption, on the neck and adjacent parts, and a somewhat discreet eruption, more like measles, on the lower extremities. As the patient was well twelve hours before, and was now covered with an exanthem varying in appearance in different localities, I declared that it could not be measles, and was even too irregular for that very irregular disease scarlet fever, and I supposed it to be a rash due to the disorder of the digestive organs, associated with mild tonsilitis. I hedged a little, however, in announcing my diagnosis, by saying that while I deemed it to be roseola, the progress of the disease might give rise to symptoms that would change my opinion.

There was no more emesis, the fever gradually subsided, the rash disappeared, and in three days I ceased my attendance. In a few days more, the mother drove up to my office with the child, to show the desquamation of the cuticle, and to announce some disturbance of the urinary organs. These sequelæ convinced me that my former diagnosis was a mistake, and I stated to the mother that, with these followings, I must regard the disease as a mild attack of irregular scarlet fever. And, in this connection, I may add that, for a long time, it had been my habit to allow desquamation of the cuticle and albuminous urine following these disorders simulating scarlatina, to determine me that the original disorder was scarlatina. And, although I had not found albuminous urine in this case, I presumed that I did not, only because I did not examine for it chemically, as the subjective symptoms left no doubt in my mind that it was present.

This last opinion of the nature of the disease was strengthened and fortified by a sister of the patient, two years older than she, taking the disorder, nine days after, and going through the same course, though in a milder form. So far as I was, or am informed, there was no exanthematous disease in the neighborhood at the time, nor indeed in the city; but, following these attacks, I heard of a few so-called scarlet-fever cases in other parts of the city, and about four months afterward we had a wide-spread epidemic of mild scarlet fever.

At the close of the two cases just reported, not doubting that the disease was anomalous scarlatina, my mind was much exercised over the wide uncertainty of the phenomena of that malady, having regard to its incubation, development, maturity, progress, and decline. But the affair had passed out of my mind, and somewhat faded in my memory, when Dr. Dougan, about three months since, called my attention to a report on rotheln (or German measles), in the May number of the *Medical News and Library*.

This was a clinical lecture on the subject, delivered in the Middlesex Hospital, by Robert Liveing, M. D., and originally published in the London *Lancet*, March 14, 1874. Subsequently, the *Sanitarium* for July, 1874. gave a brief synopsis of a paper read to the Public Health Association in New York, May 13, 1874, by J. Lewis Smith, M. D., on the epidemic of rotheln then existing in that city. This paper was also noticed in the *Medical News and Library* for August, 1874.

Reading these papers with some care, I became convinced that the three cases in the same house, in 1862, named by three doctors, respectively, scarlet fever, measles, and roseola, were neither the one nor another, but all of them cases of rotheln; and the same reading has brought me to the conclusion that my two little girl-patients of last year did not have scarlet fever, notwithstanding the desquamation and renal disorder, but did have rotheln; and, furthermore, by the same token, I am apt to believe that many anomalous cases of disease which have been called variously French measles, scarlet rash, and roseola, or other irregular or indefinite names, have been veritable specimens of rotheln.

Rotheln is not treated of in any of our text-books, and, so far as I am acquainted, is not included in any system of nosology or classification of diseases in our language, unless it be in that of Copland (Med. Dic. vol. iii.), under the name of rubeola, which he treats of as distinct from measles, scarlet fever, and roseola, but as a kind of hybrid between the two former. According to this writer, the ancients described epidemics of this disease, but confounded it with other exanthemata; but lately, numerous German authors have treated of the distemper as a distinct pathological condition. Copland appears to have followed the German in his definition and description of the malady, but they do not quite accord with the phenomena set forth by the recent writers, referred to above, as characterizing the disease now known as rotheln or German measles. Copland also gives an American bibliography, but the references I have had an opportunity to consult, treat rubeola as synonymous with measles, and are, therefore, not in point. This error of references is undoubtedly due to the careless reading of Copland's American editor.*

Dr. Murchison, in 1870, in the Middlesex Hospital, observed two cases of rotheln; in 1873, in the same hospital, Dr. Liveing treated five cases; and Dr. Smith reports forty-eight cases occurring in eighteen families, in New York, between December, 1873, and April, 1874. From these sources, I collate the ensuing enumerated statements as embodying the facts necessary to enable practitioners to diagnose rotheln from measles, from scarlet fever, and from simple roseola, with one or another of which I presume all of us have heretofore confounded it:

1. Rotheln attacks persons from eight months to twenty-seven years of age, and probably both younger and older. Of Dr. Smith's forty-eight cases, forty-one were under ten years of age. It is therefore generally a disease of childhood.

2. It is a specific exanthematous fever, both continuous and epidemic.

3. Its period of incubation varies from seven to twenty-two days.

4. It has no recognized prodroma, and the premonitory fever is usually mild, associated with pain in the limbs, slight shivering, sore throat, and often with coryza, redness of the conjunctiva, and sneezing.

5. The rash appears on the second day of the fever, if it has not already manifested itself on the first day, which is generally the case. Indeed, in many of the New York cases the patient was not known to be ill until his red skin attracted attention; and this was sometimes first observed at school and the child sent home in

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* Since writing this paper, Prof. Clark, of this city, has shown me a copy of Hartshorne's Essentials of the Principles and Practice of Medicine, a book published in September last, wherein a paragraph is given to rotheln, the facts presented being derived from the same sources as in this paper referred to.

consequence. The Germans give the third or fourth day as the time for the appearance of the rash; but British and American observers state that the duration of the initial fever is a marked characteristic of rotheln, distinguishing it particularly from measles, in which the eruption usually occurs on the fourth day of the fever. The rash shows first on the neck, face, chest, etc., and then extends rapidly downward. Its first appearance is maculated like the rash of measles, but of a brighter color; the spots soon coalesce, but instead of becoming patchy, horse-shoe like, or crescentic, as in measles, they make a more diffused redness, like the efflorescence of scarlet fever. The duration of the eruption is given by Dr. Smith at three days, and by the British writers at from four to ten days.

6. Desquamation follows the decline of the exanthem, and is generally of the branny character, and usually proportioned to the extent and sharpness of the rash, differing in this from scarlet fever, where a slight efflorescence is sometimes followed by a large desquamation.

7. Albuminuria may follow desquamation, but it is not present in all cases, and, when it does occur, is usually a mild and unimportant sequel, though occasionally it gives rise to acute and alarming dropsy.

8. Sore throat is one of the most constant and persistent symptoms in rotheln. It begins with the fever and continues until after desquamation, though not severe like that in scarlatina, and very rarely, if ever, leads to ulceration.

9. Rotheln affords no protection against either measles or scarlatina, nor does measles nor scarlatina afford any protection against it.

10. Rotheln is therefore a separate and well-defined disease, and belongs to the same family as measles and scarlet fever, and in many of its features closely allied to them, yet quite distinct and apart from both, and fully entitled to a cognomen in every current nomenclature of disease—a right and a distinction to which it has not yet attained.

The therapeutics of rotheln is not important. The disease is usually a mild one; and no medical man, except he be an infatuated heroic practitioner, is likely to go astray in its treatment. It is, therefore, not on this account that I have presented the subject for consideration; but I have brought it forward because it is a real existence among us which it has not been our wont to recognize, and it is our reasonable duty to know of and be able to diagnose every distinct form of disease that exists in the communities in which we practice medicine. Besides this duty of erudition, we should be able to recognize rotheln when we meet with it, to save us the self-abasement and public humiliation of making a wrong diagnosis, as in the following instance, to wit: In August, Dr. X was called to Robbie H., two years old, living with parents on South Eighth street, whom he found to have a well-marked and severe attack of measles, through which he carried the little fellow safely. In September, Robbie's mother died, and he was taken by his aunt D., who lived on Cliff street; but of this transfer Dr. X knew nothing. In December, Dr. X was called to Mrs. D.'s to see a sick child, and on his arrival found a little boy who had been manifesting symptoms of catarrhal fever for twenty-four hours; had vomited several times about ten hours before, and within the last few hours had broken out with a bright red, discreet roseolous rash. He had also a slight tonsilitis. The doctor at once pronounced it a mild attack of measles.

"But, doctor," said Mrs. D., "this is little Robbie H., whom you attended in August, before his mother died, and who was very ill of measles. Don't you remember?"

"Ah, yes! to be sure. Is this Robbie? He had a severe turn of measles then; but this really seems like a light attack of measles again. But let us see what to-morrow will bring forth."

The next day the discreet rash became a tolerably uniform efflorescence, and Dr. X thought it might be a mild scarlet fever, and desquamation, a few days later, confirmed him in his diagnosis, and all parties rejoiced that the little half-orphan had gone through his scarlatina with so little suffering and danger.

In February, Dr. X was, a third time, summoned to see the same little Robbie.

This time the doctor found the little fellow laboring under a savage attack of scarlatina anginosa. There was no hesitation about the disease now. The diagnosis was prompt and clear, and the prognosis exceedingly doubtful.

"Well, Dr. X," said Mrs. D. somewhat sharply, "you said that he had scarlet fever in December, and that he would never have it again. Under that assurance I have admitted a dozen children, with and without their mothers, into this room since Robbie has been ill. Now you say he has scarlet fever again, and of a character not only to alarm me for his safety, but make me feel that I have been unwittingly the agent of spreading the same terrible disease throughout the neighborhood. It is too bad, too bad."

"I am very sorry, Mrs. D.," the doctor replied. "I thought it was irregular simple scarlet fever in December, but I know that it is severe and almost malignant scarlet fever now, whatever that was; and I can but hope that none of your friends will suffer from the unusual accident of a child having scarlet fever twice, a condition of things that no one could foresee."

But notwithstanding this plausible speech, Dr. X felt many misgivings about the correctness of his December diagnosis, while the mothers of all the children who had visited their little friend Robbie since he was taken ill, declared that Dr. X was an old granny who did not know one disease from another.

The truth of the whole affair is, that little Robbie had measles in August, rotheln in December, and scarlatina anginosa in February, but Dr. X had not made himself fully acquainted with all the members of the family of febrile exanthemata, and therefore erred and suffered.

Let no one of us be caught in the same perplexity that beset Dr. X, and thereby escape the little humiliation and the big remorse that overtook him.

As a sort of appendix I will add, that rotheln having become a recognized disease, it should have, as before stated, a place in our nomenclature of diseases by some appropriate name. But such appropriate name has yet to be announced. Rotheln is not a good one, because it is a German term, and is translated by the dictionaries variously—measles, red measles, and roseola, which are not synonymous English terms by any means, and no one of them the equivalent of the German. Copland named it rubeola, but that is unsuitable, because it is already appropriated, having been the popular professional name of measles since the days of the Spanish-Arabian physicians. As the disease partakes somewhat of the nature of both measles and scarlet fever, I propose to nominate it *rubeola scarlatinosa* for its technical designation, leaving "German measles" for its popular name among both professors and laymen.

Hospital Reports.

A CASE OF PARALYSIS OF THE EXTERNAL RECTUS.

By JOS. AUB, M.D., Lecturer on Clinical Ophthalmology. Reported by Philip Zenner, Resident Physician.

The two patients before you present anomalies of the muscular system of the eye.

Observe the eyes of the first patient as he fixes them upon some object in front of him. You notice a slight deviation of the optic axes of the two eyes, a slight convergence. As the object upon which he fixes his gaze is moved toward the left side, the amount of convergence becomes continually greater—the visual axis of the right eye being turned directly toward the object at all times, while the left eye moves but very little outward. But when we tell him to look at an object on the right side, the parallelism of the optic axes is restored.

The second patient presents a condition of marked convergence of the eyes; but whether she looks directly forward, or to the right or the left, the amount of convergence remains the same.

What causes this deviation of the optic axes? Is it caused by a cicatrix drawing the eye inward, or by a shortening or contraction of the internal rectus, or some anomaly of refraction; or is it caused by a paralysis of the external rectus?

The second case is an ordinary strabismus, and we can not enter into its consideration in this lecture further than to contrast it, in a few particulars, with the other case.

The first patient we will suppose to be suffering with a paralysis of the external rectus of the left eye, a subject which we will now try to elucidate.

In paralysis one symptom is always present, and that is diplopia. We hold an object before the patient, and he tells us he sees two objects. We now cover each eye separately, and learn that he sees the image on the right side with the right eye, and that on the left with the left eye: he has homonymous diplopia. This is easily explained.

While in the right eye, the sound one, the image falls directly upon the macula lutea, the left eye is turned inward, and the image falls upon the inner side of the macula. An image on the inner side of the macula appears to be on the outer side of the field of vision, the eye always taking cognizance of objects just in an opposite direction to that of the image stamped upon the retina. But you will observe that the relative positions of the two images are not always the same. When the patient looks to the right—the direction in which the parallelism of the optic axes is restored—one of the images entirely disappears. When the patient looks directly forward he sees two objects, but they are close together; but when he looks to the left, the images, he tells us, are very far separated from one another. This is in direct relation with the change we observe in the optic axes.

Another very important symptom in paralysis is the secondary deviation of the sound eye. When the patient looks at the object I hold a little to his left, there is a slight convergence, the right eye being fixed upon the object. Now I cover the right eye and cause him to fix the object with the left one, and we will observe, when I uncover the right eye, what position it has assumed. You see it is turned far inward, the amount of deviation being much greater than when the sound eye was turned toward the same object. You will readily understand why this is so. Owing to the enervation of the left externus, it requires a larger amount of nerve force to turn the eye outward than in a normal eye. But the same amount of nerve force is expended on the right internus, which causes that eye to turn far inward.

You do not observe this secondary deviation in this case of strabismus. Here, when the right eye is fixed upon the object, the left is turned inward, and when the left eye is fixed upon it, the right is turned inward to the same extent.

I wish to call your attention to one other symptom in this case. I cover the left eye and ask the patient to project his finger rapidly toward the pencil I hold in my hand. He touches it every time. I now cover the sound eye, and, in making the same effort, he always misses the mark, his finger always coming to the left side of the pencil; and the farther the pencil is held toward his left, the farther does he miss it. His eye may be directed toward the object, and the image fall upon the macula lutea; but he is misled by a miscalculation as to its position. The amount of nervous force required by the enervated muscle to turn the eye sufficiently outward is much greater than that necessary to turn the sound eye toward the same object, and it is therefore supposed to be farther in the direction in which the force is expended than it really is.

THROMBOSIS AND EMBOLISM.

A Lecture delivered at the Cincinnati Hospital by Dr. N. P. Dandridge.
Reported by Philip Zenner, Resident Physician.

GENTLEMEN:—The specimen I here present to you is the femoral vein, the cavity of which has been obliterated by a coagulum of blood. This coagulum, you observe, at its upper part, is firm and tenacious. It is lighter in color than a recent clot, and is deposited on the wall of the vein in layers. The lower portion of the vein, even into the smaller veins of the leg, as far as they are dissected out, are filled with a soft dark-colored clot. From these conditions we judge that that portion of the clot exhibiting the concentric layers of light color was of gradual formation during life. This the clinical history confirms us in. The specimen was obtained from a patient who died of phthisis, and several weeks before death presented a condition of marked œdema of the leg. This œdema was accounted for by the presence of a thrombus in the femoral vein, obstructing the return flow of blood. How correct the diagnosis was, the specimen shows you.

The second specimen is of the same kind, and was obtained from a patient with an exactly similar history.

We have, then, two specimens of femoral veins in which the cavity is more or less completely obliterated by the coagulation of blood before death. This condition is known as thrombosis. A thrombus, then, is the coagulation of blood in a vessel during life, more or less completely obstructing the blood flow through it. The condition above described was formerly considered as due to an exudation upon the walls of the veins from a preceding inflammation, and was therefore termed phlebitis. The phlebitis, however, is much more frequently the effect of the thrombus acting upon the walls of the vessel, and not the exciting cause of the deposit of fibrin. You know that if blood is allowed to stand, it soon assumes a solid form, or, as it is termed, coagulates. You have also doubtless seen your professor of physiology separate the fibrin from fresh blood, by means of a bundle of switches, before coagulation has taken place.

These two conditions act similarly within the living body; and when you have a stagnation or obstruction to the flow of blood, then coagulation will take place; and, if from any cause, the wall of the vessel is roughened, so that the blood in its passage comes in contact with an uneven instead of a smooth surface, some fibrin will be whipped out of the blood and adhere to the side of the vessel. We recognize a distinction between a thrombus formed at once by the sudden and complete stoppage of the blood stream, as from the occlusion of an artery by a ligature, and one whose formation occurs slowly from a partial obstruction by the pressure of enlarged glands. The difference between these two forms we will discuss a little later.

Under what conditions, then, do we have a slowing of the blood stream in the living body. Any fluid passing through a channel of a certain diameter will flow more slowly at any point where there is a sudden widening of the channel, the other conditions of its flow of course remaining the same. This holds equally good for the blood stream in the vessels. You will remember, on a former occasion, that I showed you an aneurismal sac that was almost completely filled by a very firm coagula, this coagula being deposited in concentric layers on the wall. Here the rapidity of the stream was much diminished as it entered the dilated sac, and the deposit of the layers of fibrin was still further facilitated by the roughened condition of its walls. Expansion of a vessel is therefore a condition favoring the slowing of the blood stream and the consequent coagulation of the blood. Sudden contraction would likewise produce a partial stasis behind the point of narrowing. One of the specimens exhibited is probably an example of this, as the obstruction, in the first place, was most likely due to the pressure of an enlarged inguinal gland. Inflammation along the course of a vein and cicatricial contraction present similar conditions.

The weakened contraction of the heart in persons of advanced age or those suffering from long-continued and exhausting disease favors a sluggish circulation. Whether, in these cases, the tendency to coagulation is favored by an increased quantity of fibrin in the blood is still a mooted question. A few days ago I presented you a specimen showing the effects of atheroma on the walls of the aorta. The entire wall of the vessel was thickly covered with calcareous plates, presenting everywhere projecting edges and roughened surfaces. This condition occurring in small vessels is a prolific cause of thrombi formed by the fibrin separated from the passing blood. In the coagulations thus formed, we may have either a softening and disintegration of the clot, and a return of the caliber of the vessel to its former condition, or we may have an organization of the coagula which will form an integral portion of the vessel wall and permanently occlude its channel.

Let us now study more minutely the formation of the thrombus and the changes it undergoes.

As I have told you, we distinguish between the thrombus of rapid formation and that which is gradually formed.

For the former, we find a typical example in the clot formed after ligation of an artery, and can here follow exactly the various changes which occur. As soon as the ligature is placed, there is stasis and coagulation of blood extending up in the vessel to where the first branch is given off. This clot, at first soft and of a deep-red color, soon becomes lighter in color and of a firmer consistency. These changes continue until the soft plug becomes a firm organized mass, which forms an integral portion of the vessel walls. If we follow the changes by the microscope we find the recent clot apparently almost entirely composed of red blood corpuscles, with here and there a colorless one. The red corpuscles soon lose their color, and the white rapidly increase in number, until the mass is apparently entirely composed of them. This rapid increase of the white may be accounted for either by an immigration of leucocytes into the clot or by a division of the pre-existing white corpuscles originally there. There then appear spindle-shaped cells and well-formed fibers, until finally we have the mass composed of a tissue resembling, in every respect, well-formed cicatricial tissue. During these changes the plug becomes vascular. Its vessels spring from two sources—directly from the channel of the occluded vessel, and also from vessels developed from the vasa vasorum of its walls. The clot is now an integral and permanent portion of the vessel walls. Such an organization may, however, fail to occur, and then, when the ligature "comes away," secondary hemorrhage will take place.

The thrombus of gradual formation is quite different from the above. Commencing from some point in the vessel, most frequently in a vein, it increases by the deposit of layers of fibrin extending up and down the vessel and gradually obstructing more and more the lumen. The formation of the clot in layers you see demonstrated in this specimen. The vessel at last may be entirely occluded, and then, of course, there will be a complete stasis in all the branches emptying into it. Such a thrombus may likewise become organized like the former case, or it may soften and disintegrate and finally be washed away, leaving the vessel free, or may be some particle from it may be carried into the circulation and form an embolus in some distant organ. This softening always commences in the center of the thrombus, and, to the unassisted eye, presents the appearance of a purulent fluid. It, however, contains no pus corpuscles, but only a granular debris, and is simply a disintegration and liquefaction of the fibrin.

I have told you that a particle from a softened thrombus may be washed into the circulation, and, arrested in some distant organ, become an embolus. This takes us to the second part of our subject—namely, embolism.

An embolus is a foreign particle that enters the circulation at a certain point, and is carried away until it is arrested by some vessel whose caliber is too small to let it pass. The point of starting would therefore determine, to some extent, the locality in which it would stop. Thus, if it is a bit of fibrin washed from a diseased valve of the left side of the heart, it would, of course, be arrested somewhere in the subdivision of the arteries. One of the vessels at the base of the brain is a favorite point for such emboli. If, on the other hand, from a softening thrombus in the femoral vein, it would readily pass through the channels which the enlarging veins offer, into the ascending cave, through the right heart, and would finally lodge in some of the divisions of the pulmonary artery. The specimen I here show you is an example of the arrest of an embolus in the lung. I will speak of it further on. In the portal circulation the liver would be the point of arrest. It is in this way that the origin of abscess of the liver during a case of dysentery is explained. The point of entrance and size of the particle will determine, to a great extent, the point of lodgment.

There are, however, exceptions to this rule, and you will find emboli or their effects in other organs when you would have expected them in the lung. This was difficult of explanation until Feltz, of Strasburg, demonstrated that foreign particles could pass through the capillary system of the lungs and still be caught in the liver, kidneys, or in other organs; for, the lung once passed, the lodgment may happen at any point of the arterial ramifications. These experiments were made by the injection into veins of particles colored with carmine, so that they could easily be recognized wherever they might be found. Actual measurement now demonstrates that the pulmonary capillaries are larger than those of any other organ.

If the emboli lodge in a large vessel, as of the brain, it may be immediately fatal, from cutting off the blood supply; if in a small vessel, and one whose area of distribution is limited, the effects may be most diverse. Beyond the point of lodgment in the vessel its divisions may, for a time, be empty. This, however, is soon followed by an influx of blood from collateral branches, and may be by a reflux from the venous capillaries; so that not only is the area supplied by the occluded vessel filled with its normal amount of blood, but the congestion is so excessive that we may have rupture and extravasation. This is what has occurred in the lung I exhibited a few minutes ago to you, and is what usually occurs in all similar cases of pulmonary apoplexy. If the particle forming the embolus is in itself innocuous, as a bit of fibrin, there may result a limited, harmless inflammation, which will develop a small, fibrous nodule about the part, and the vessel may be permanently occluded. The area beyond is soon supplied by collateral circulation. If, however, it is from some decomposing tissue, or is itself some septic particle, you will have more or less violent inflammatory action, resulting in abscess. These points of inflammation are often very numerous, and you will often see, in the same organ, all stages, from commencing inflammation to the cheesy nodule.

Here is a spleen which demonstrates such an embolic infection. A section through it shows you that the surface is thickly studded with more or less consistent cheesy nodules, varying in size from a pea to a chestnut.

Here is another example of secondary disease, due to such embolic infection, in an organ distant from the primary seat. Examining this lung, you see a number of firm, rounded nodules, cream-colored on section, most of which are found just beneath the pleura. They are encapsuled and readily distinguished from the intervening lung tissue, which is mostly healthy.

I here show you a similar nodule in the liver, the surrounding tissue being likewise healthy.

These specimens are both examples of secondary cancer. The original tumor was in the groin, and these secondary deposits owe their origin to the passage of some cancer elements through the vessels and their lodging in the pulmonary and hepatic capillaries.

You thus see that the effects of emboli in the various organs where they are stopped is very various, and depends upon the nature and origin of the mass composing the obstructing body. Cancerous elements may be carried from most distant parts, and lodging in lung, or liver, or elsewhere, and there finding conditions favorable for their growth, develop into new cancerous masses, and thus produce new foci, from which the original disease may extend.

The influence which the modern views of embolism has had upon our ideas of the extension and development of morbid processes has been very great, and has revolutionized many former theories and explained much that before was not easily understood. Organs in widely diverse parts of the body are thus brought into intimate relation by means of the vessels, and this relation furnishes us with a ready and satisfactory explanation of many a knotty problem regarding the extension of disease.

Death of Dr. Anstie.—Death has claimed another victim from the foremost ranks of the profession in the person of Dr. Anstie, Physician to the Westminster Hospital, and well known by his writings on hygiene and therapeutics, and as editor of our excellent contemporary, The Practitioner. Several cases of severe illness having occurred in the School of the Royal Patriotic Fund, at Wandsworth, Dr. Anstie was called in to advise as to the causes and means of prevention, as well as to the treatment of the sufferers. With a disregard of principles which he would most strenuously have insisted upon in others, he spent several hours on Sunday, the 6th inst., in these investigations, exposed to sewer-gas, and resumed them on Tuesday, the 8th. In the evening of that day he complained of being unwell, and, notwithstanding the unremitting attention of his friends, Dr. George Johnson and Dr. Burdon Sanderson, he died on Saturday of blood poisoning, occasioned, primarily, from a puncture in the hand while engaged in a post-mortem on one of the pupils.—*Medical Press and Circular.*

Dr. T. Lauder-Brunton will succeed Dr. Anstie as editor of the London Practitioner.

Selections.

Hints about Tertiary Syphilis—The subject of tertiary syphilis is one which has not been so elaborately treated as that of primary or secondary syphilis. That unlucky division of medical practice in hospitals, into medical and surgical, has been the main cause, I presume, of this notable fact. Surgeons, not excepting the great John Hunter, are so much occupied with diseases which require operative procedures, that they are not so ready to take an interest in diseases such as tertiary syphilis, which are not amenable to operations, but solely to medicinal agents. In Paris, this has been so much felt that, since the days when M. Ricord left the Midi Hospital, there are now two physicians, in place of two surgeons who formerly carried on the service; and the same occurs at the Lourcine Hospital.

In London, as yet, the syphilitic wards of hospitals are still under the charge of operative surgeons; and hence, our best works on tertiary syphilis are as yet only to be found in France.

Proportion of Cases of Tertiary Syphilis.—It is well known by all persons who have for many years watched cases of secondary syphilis, that a large proportion of all cases of syphilis exhibit no tertiary symptoms. It would be premature to state the exact number of persons with secondary rashes, who may expect to have some form of tertiary lesion; but I think that rather more than the half of patients I have treated have not had any such symptoms, as far as I have followed up their cases.

As a general rule, tertiary lesions do not occur before the end of the first year of syphilis, and far more frequently at the end of the second year than in the first. The rashes of secondary syphilis are apt to last for eighteen months or two years. On the other hand, tertiary lesions may occur at *any* epoch after the early chancre or rashes. Ten, twenty, thirty, or even forty years of health may elapse, and then the patient may have some alarming, nay, fatal, syphilitic lesion. It is for this cause that syphilis is such a grave disease, and that it has been justly styled by the renowned Ricord "the greatest plague of the nineteenth century."

Causes of Tertiary Syphilis.—This is perhaps one of the most obscure points in the whole history of syphilis at this moment. Doubtless, scrofula or phthisis in the family history of the patient who is attacked with syphilis is a very predisposing cause to tertiarism. Old age, I also think, predisposes to severe forms of both secondary lesions and tertiary disease. Some authors will have it, that the use or non-use of mercury, during the early epoch of the disease, is the chief cause of the supervention of tertiary disease; and on this account are strenuous in urging on all practitioners to administer long and careful courses of mercury in ALL cases of syphilis. Others, again, consider that tertiary syphilis only occurs, when some constitutional dyscrasia exists favorable to the ravages of the poison, and maintain that its occurrence is not prevented or caused by courses of specific medication. On this very important point much more requires to be observed and written. On the one hand, it seems clearly of importance to guard against administering a twelve months' course of mercury to all patients with true syphilis indiscriminately, when it is ascertained that rather more than half of such patients, if not treated at all with mercury, would not be liable to tertiaries.

But there is as yet no way of ascertaining what class of secondary rashes are apt to be followed by tertiary lesions and what are likely to be exempt; and hence, the question now is, how long mercury ought to be used for the purpose of preventing the possible occurrence of the dangerous period of tertiary lesions.

M. Ricord proposed a six months' treatment, with one grain of the green iodide of mercury daily, in the secondary period. His pupils, as Edward Fournier, propose interrupted courses of the same prescription, for six weeks at a time, during a period of two years, as the treatment most likely to prevent the occurrence of tertiary lesions. Time alone can give a reply to these questions.

With respect to scrofula, I have not a doubt that tertiary syphilis is occasionally rendered almost intractable by the constitution of the patient being consumptive or scrofulous. In several patients of consumptive stock, tertiary lesions have recurred again and again, year after year, until at length the patient has been carried off by phthisis or some other intercurrent disease.

Diagnosis.—The diagnosis of tertiary syphilitic disease is often most obscure. In ancient days it used to be said, "*In dubio, suspice venerem*," and at present the same adage is not without its value. I have very often seen cases of chronic Bright's disease and paralysis, which other practitioners have put down to ordinary causes, but in which I made up my own mind as to some syphilitic causation ere long.

Few tertiary syphilitic lesions have anything distinctive or pathognomic about them. Liver or kidney disease, for instance, when syphilitic, is not easily diagnosed. The tertiary lesion is generally solitary, and no other syphilitic symptom is present. As to syphilitic antecedents, these are usually wanting, especially in women, who on this point are either secretive or ignorant of the nature of their disease.

The lesion may occur at a very distant epoch after the occurrence of the primary disease, and in certain classes of events it seems often indecent to suspect syphilis. For instance, when the father of a large, fashionable family is seized with hemiplegia and aphasia, it would often seem out of the question to think of such a man having contracted syphilis, were it not that such cases were not unknown.

The *Prognosis* of tertiary syphilis is a grave one. Far more people die of tertiary lesions than the mass of the profession has, I believe, any conception of. When tertiary syphilis has made its appearance, we may be prepared for paralysis of any nerve, or kidney, lung, or liver disease in our patient, not that these *will* occur, but that they *may* occur at any period of his after-life. In the case of women, too, tertiary syphilis may co-exist with the loss of all their children at birth or shortly after birth.

Treatment.—Tertiary syphilis, fortunately, is more influenced by drugs than either primary or secondary syphilis. Iodide of potassium is, as M. Ricord has always maintained, *the remedy* in tertiary syphilis. This is the most incomparable of all therapeutic agents at this stage of the disease. Not that even this remedy always cures the lesions caused by tertiary syphilis. Certain obstinate cases will resist even this most potent drug, but they are rare exceptions. The cases in which iodide of potassium fails to cure are indeed deplorable cases of tertiary syphilis, and for the most part they prove fatal in the end. Of course, we can not expect iodide of potassium to cure the lesions of the brain already caused by some gummy tumor, or restore the skin already destroyed by some sloughing ulcer. In some cases again, we are always curing our patient, and the disease eternally relapses. I have had cases of tertiary sore throat where the patient returned with alarming symptoms in the fauces for ten or twelve years, the intervals of comfort being perhaps not more than a couple of months at a time.

Gummy Deposits.—Since the very clear account given by Virchow of gummy deposits, the profession has begun to understand the way in which tertiary syphilis commits such ravages in the tissues. Gummy tumors have several stages. In the first they appear as tumors, hard, solid, and not inflamed. These tumors then soften, fluctuate, and become dusky red, then open and ulcerate, and a slough comes away, composed of the skin and cellular tissue. Next follows the cicatrization of the ulcer.

It is very rare that more than two or three such tumors are seen on the same patient; and the tumors rarely exceed in volume the size of a hen's egg. There are instances on record in surgical works, where such tumors have been removed, as the tumor has exceeded the size of the fetal head and been taken for a malignant one.

Diagnosis.—In making up our minds as to the nature of a gummy tumor, three orders of facts have to be taken into account: the consideration of the antecedents, the other symptoms present, and the aspect of the ulcer or tumor. Now the gummy tumor or its ulcer presents no appearance which is quite pathognomonic, but several very special. It is a tumor which was at first hard, then softened, and lastly ulcerated. It resembles, however, in some respects all solid tumors, such as cancer, adenoma, or others; and is sometimes like scrofula or simple ulcers.

Gummy tumors have several very important points of diagnosis which distinguish them from cancer. In the first place, cancer is far more frequent in old persons than in young, while the gummy tumor has no age peculiar to itself. In cancer, there is but one tumor; in the gummy tumor, sometimes more, and the gummy tumor is usually small in size, while cancer may be large. Then, again, the cancerous tumor adheres to the skin, and the gummy tumor is non-adherent and irregular in form. There is pain in cancer and no pain in gummy tumors. The glands are affected in cancer and not so in gummy tumor. The iodide of potassium has no effect on cancer, but cures gummy tumor. It is quite miraculous to see how rapidly they are cured by the iodide.

As to the treatment of gummy tumors, wherever situated, first of all, they require no interference with the knife, and the same may be said of cautery. Nor need we trouble to incise such tumors, when they fluctuate. All use of cautery may be laid aside, and large doses of iodide of potassium alone made use of; as much as half a drachm may be given in one dose. Rarely, indeed, shall we require to call in the aid of mercury or any other drug, and mercury should only be used when the iodide has been tried in its dose and failed. When the gummy tumor becomes an ulcer, it ought to be treated by softening poultices and some stimulating wash, such as *lotio plumbi.*

Tertiary Affections of the Nerves.—Patients often apply at hospitals who are suffering from some nervous disease, the antecedents of which have been quite unrecognized as specific; and whose disease is much ameliorated (in some cases cured) by specific remedies. The diagnosis of disease of the nerves dependent on syphilis is often obscure; but the grouping of the symptoms points to the nature of the case.

The age of the patient is a further help to diagnosis, for the great majority of cases of paralysis seen in young adults are seemingly due to the poison of syphilis. If a case of palsy in a young man over 20 and under 50 comes before us, it is well to try the effect of specific remedies, unless some very evident cause be present.

Epilepsy, too, in persons of that age, is frequently syphilitic in its causation, and is better treated by iodide than by bromide of potassium. In such cases of epilepsy, the pain in the head will often be found to precede the fit, whereas, in idiopathic epilepsy, headache follows the fit. Then the attacks of ordinary epilepsy commence generally at puberty, while those of syphilitic epilepsy come on after 20. Complete loss of consciousness is not so frequent in the syphilitic cases as in ordinary epilepsy, and the spasms are unilateral in syphilis in many instances. Many fits may supervene in rapid succession, with intervals of coma, and this may be followed by loss of power on one side.

In cases of hemiplegia from syphilis the patient does not often lose consciousness. The gummy tumor may exist in the skull, the vessels, or meninges of the brain, or in the texture of the brain itself. When the corpora striata are affected, the hemiplegia is most marked.

Syphilitic inflammation and gummy tumors occur also on the cord and cause paraplegia. The sensation of constriction round some part of the body points to disease of the cord.

Vertigo is commonly complained of in syphilitic brain disease.

With respect to diagnosis, hemiplegia, accompanied with palsy of one of the cranial nerves, or with paraplegia, is commonly syphilitic; so is amaurosis with convulsions.

Patients with syphilis of the brain are apt to have fresh attacks of the disease from time to time; and hence, a certain portion of the dementia seen in lunatic asylums is due to tertiary syphilis. Such cases end fatally ere many years pass by. Esquirol remarks in one of his works, that insanity, combined with paralysis, soon proves fatal. Many such cases are of syphilitic origin.—CHARLES R. DRYSDALE, M. D., *Member of the Royal College of Physicians of London, etc.*

Jackson on Hemiplegia.—In the papers mentioned in the note,* Dr. Hughlings Jackson reviews the whole subject of hemiplegia, and the lesions of the corpus striatum which induce epilepsy and chorea, with special reference to the question of recovery from severe injuries of the great motor ganglia of the central nervous system. On the latter point, in particular, his views have been much misunderstood, and consequently misrepresented. It may, therefore, be as well to set forth as clearly and succinctly as possible, what Dr. Jackson really does teach and write upon these interesting topics. This is, perhaps, still more seasonable, as a recent paper on "Brain Injuries," by Dr. Henry Day, of Stafford, in the last volume of the St. Andrew's Medical Graduates' Transactions (vol. vi. pp. 210–228), seems, if we do not mistake the author's meaning, to point in a somewhat backward direction, and to ignore almost completely the positive results of clinical experience and post-mortem examinations, in favor of some apparently "glaring instances" of exceptionally severe injuries to the brain, which were followed by but slight and apparently insufficient symptoms. It is possible that some of the opponents of all attempts to localize nervous actions in definite regions of the brain are swayed by conscientious motives, which we must respect. They fear lest "giving a local habitation and a name" to special functions of the nervous system should end in a crass materialism. In this we think they err, for surely an instrument is no less an instrument, merely because it is complex; and, if we reason from analogy, we would say that the more perfect and the more complex the instrument, the more individualized and intercorrelated must be the separate parts and portions of the mechanism. A devout physiologist of robust mind need scarcely be more shocked at discovering that the brain is divided into regions of different properties and powers, than a devout astronomer is scandalized or disturbed by the resolution of nebulæ into distinct worlds and systems of worlds. The wonder and reverent adoration of the latter would, in all probability, be shared by the former, so soon as he fully comprehended the perfection and complexity, yet withal real simplicity of the mechanism of thought. Our present business, however, is not with the ultimate tendencies of this or that system of psychology, but a brief review of the published teachings of Dr. Hughlings Jackson on the subjects named above.

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* "On a Case of Recovery from Hemiplegia." By J. Hughlings Jackson, M.D., F.R.C.P., Lond., Transactions of the St. Andrew's Medical Graduates' Association, vol. vi. (for 1872 and 1873), pp. 60–68. Idem: The Lancet, "Mirror of Hospital Practice," May 2, 1874, p. 618.

"Clinical Lecture on a Case of Hemiplegia." By J. Hughlings Jackson, M.D., etc. Reprinted from the British Medical Journal, for July 18 and 25, 1874.

See also Medical Times and Gazette, December 21, 1867; Medical Mirror, September and October, 1868; and "A Study of Convulsions," by the same author, in the Transactions of the St. Andrew's Medical Graduates' Association, vol. iii.

The first thing that strikes one, on comparing the clinical lecture which stands third in the list with the best teachings of our text-books, or even with such good stuff as Dr. Todd's clinical lectures on the same subject, is the great breadth of Dr. Jackson's views. He teaches the student emphatically that hemiplegia, chorea, and convulsions, whether "epileptic" or others, are but symptoms; that the "case" which presents such and such symptoms is to be studied as a whole. Listen, he says, to his heart and lungs, examine his arteries, use the ophthalmoscope, test his urine, inquire into his history; personal and relative, and do not be content with merely observing and analyzing, however minutely, his special nervous symptoms. Although these may not be the exact words, they express most clearly not only Dr. Jackson's teaching but his practice. At page 1 of this lecture, he writes: "Do not take a nervous view of nervous diseases. An examination of the patient altogether, and a careful inquiry into his individual and family history, are the things of most importance. The patient's specially nervous symptoms, such, for example, as aphasia and hemiplegia, are, from a medical point of view, very often of less consequence than his general clinical state." It is very interesting to note the stress Dr. Jackson lays upon arterial lesions. "Most nervous symptoms are not directly of nervous origin. The most important and most common of them are of arterial origin; an artery bursts, and the escaped blood tears up a nervous center; or an artery becomes blocked up, and a nervous center softens. Nervous organs very often indeed suffer because their arteries are faulty. . . . These considerations are not to be lost sight of in the consideration of hereditary, as we shall see when we come to speak under the head of 'Softening of the Brain.'"—*Clinical Lecture*, p. 1.

In the clinical lecture before us, Dr. Jackson speaks chiefly of the hemiplegia resulting from damage to either the corpus striatum or optic thalamus; in fact, "the common form of hemiplegia." "It depends on destruction of the corpus striatum or optic thalamus. Observe the manner of statement. It is not scientifically exact to speak of it as a symptom of softening, or of cerebral hemorrhage, or of tumor; for it is a system of destruction of the corpus striatum by any pathological process whatever. I should say, 'destruction of the functions,' because, although in most cases there is actual breaking-up of nerve-fibers and cells, yet in one clinical variety of hemiplegia there is only a temporary exhaustion of the nerve-fibers and cells of the corpus striatum. This is the epileptic hemiplegia of Dr. Todd. The following is my speculation as to its mode of causation. There is in the convulsion a strong discharge of gray matter of convolutions through the corpus striatum to the muscles convulsed. If the discharge be excessive, the corpus striatum is left temporarily *hors de combat;* its nerve-fibers and cells are paralyzed in the same way, I suppose, as a nerve can be experimentally paralyzed by an excessive artificial stimulation." In a foot-note Dr. Jackson explains epileptic mania on the same principle (*Ibid.* p. 3). He says, strongly: "Slight and transitory palsy may depend on permanent, although limited destruction by a very small clot, or softening from plugging of a very small artery. I shall hereafter prove to you that patients recover from hemiplegia, notwithstanding that the paralyzing lesion is not restored." He believes "that recovery is to be explained on the principle of compensation. The structure of a nervous organ is, be believes, such that each part of it represents slightly (although such part in some special manner) what the whole organ represents in greater degree." For example, Dr. Jackson thinks that each part of the corpus striatum represents the face, arms, and legs; that, so to speak, the corpus striatum is a mass of little corpora striata. Let us try to illustrate this, although imperfectly, by analogies and symbols. Let us suppose a note on a trichord piano to be damaged. As long as one, or still more two, of the wire-strings were unbroken, the damage is reparable by a simple tuning and the removal of the broken wire. It is only when all three are destroyed that total loss of the note results irremediable, except by new structure. Or say the corpus striatum represents, in each part, face, arm, and leg, which we will represent by letters: then the individualized functions may be represented by letters of different type, thus:

1st, or lower segment .... = l. a. f.
2d, or intermediate segment .... = *a. f. l.*
3d, or highest segment .... = *F. A. L.*

For these illustrations Dr. Jackson is not responsible. The following extract, from the Medical Times and Gazette, of December 21, 1867, quoted again in the St. Andrew's Medical Graduates' Transactions, vol. vi. pp. 60, 61, puts this still more clearly:

"There is no doubt that a large part of one cerebral hemisphere may be destroyed without any permanent mental effect. It is equally certain that a part of the corpus striatum may be destroyed without any permanent hemiplegia. But no one denies that the hemisphere is the chief seat of the mind, and that through the corpus striatum the rest of the nervous system acts on the limbs. In incomplete hemiplegia—to limit the illustration to the arm—there is not palsy of part of the arm, but partial paralysis of the arm (*vide infra*). So it seems each movement of the arm is represented in each part of the corpus striatum; or conversely, that each part of the corpus striatum represents the movements of the limbs as a whole. In complete hemiplegia the arm can not be moved in any way, except by swinging it from the shoulder; and in incomplete hemiplegia the fault is not so much that some one or more motions can not be performed at all, the rest of the arm being good, but that although all the movements are to be done they are all badly done. And when the destruction of nerve tissue is slight in extent there need be no permanent defect in any manner of movement. Applying this principle to the brain, we may understand how it is that there may be a large abscess in one cerebral hemisphere and yet no obvious mental defect. Or, to take with arbitrariness a special series of motor or sensory processes, we see how it happens that disease of the fore part of the anterior lobe, of the posterior lobe, and of the hemisphere above the lateral ventricle, need not produce any defect of the psychico-physical processes which constitute the phenomena of language. Just as in the arm nervous system, there is a gradual increasing complexity, from the delivery of nerves to muscles, through interweaving of nerves in the nerve-trunks, to an interrelation so great in the corpus striatum, that damage to a small part of this organ weakens the whole of the limbs, and yet destroys no single movement—so we may fairly infer that, continued from the corpus striatum, deeper in brain—further in mind—are still more complex arrangements of motor processes, reaching a minute degree of interrelation and a vast width of association with the complex motives—the sensation aspect of mind—of the hemisphere, and becoming at length so complete that a quantity of brain may be destroyed without any special mental defect resulting" [? being discoverable].

Dr. Jackson can not see the force of the general objection to his embolic view of chorea, that the patients recover, sometimes rapidly. He says: "The fact I have always admitted, but I could never see that the objection was the fatal one it was assumed to be. I have made post-mortem examinations, showing that recovery had occurred from paralysis due to far grosser cerebral lesions than I or anybody else ever supposed to exist in chorea." "Let the state of the corpus striatum be carefully considered. There can be no doubt that there are cases of hemichorea exactly like cases of that form of hemiplegia, which results from disease in the corpus striatum—like them in that the region affected is the same (face, arm, and leg), is of course meant. It is really far simpler to study first the symptoms of hemiplegia, and next those of chorea and convulsions. The hemiplegia is to be looked on as a sort of experiment, telling us what movements are represented in the corpus striatum and its region. If in another case we find activity of those very parts which are paralyzed from a clot in the corpus striatum, what is the inference?"

Dr. Jackson's views as to the seat and nature of chorea, are well put by Dr. Tuckwell, of Oxford, in the fifth volume of the St. Bartholomew's Hospital Reports, to which we must refer. Some criticisms and Dr. Jackson's answers to them will be found in the Obstetrical Society's Transactions, vol. x. p. 147 et seq. The first case of recovery is that of a man aged twenty-one, who had complete left hemiplegia of the usual type, without either cardiac disease or albuminuria. He died in a bath twenty-one months afterward, but it is not clear whether suicidally or not. Nearly the outer half of the corpus striatum was destroyed. In the second case (Lancet, May 2, 1874), there was no necropsy, but the woman recovered in three weeks. The diagnosis made was syphilitic embolism. As regards the gravity of paralyzing lesions, Dr. Hughlings Jackson remarks (foot-note to Clinical Lecture, p. 11 and elsewhere), that "the word grave includes two factors: size of lesion (quantity of nerve-tissue destroyed), and suddenness of lesion (rapidity of destruction). The element of suddenness is a very important one. As Prêvost remarks, the deviations mentioned in the text usually accompany 'brusque' lesions. Reference is here made to lateral deviations of the eyes and head."

In a clinical point of view, Dr. Jackson makes three degrees of hemiplegia. The first kind is with slight facial paralysis of the same side, chiefly of the lower two-thirds of the face; the tongue is little affected, and its paralysis does not affect its nutrition. Dr. Jackson thinks that defective articulation of "labials" is due chiefly, if not entirely, to the palate—a statement which, however true in some cases, appears to us in direct opposition to the facts observed in some cases of general paralysis. The second degree of hemiplegia involves some of the trunk-muscles also. To save space, we copy Dr. Jackson's description, the hemiplegia being supposed to be dextral: "1. The head turns to the left. 2. Both eyes turn to the left. 3. The muscles of the chest and belly are weakened on the right. 4. The muscles passing from the trunk to the right limbs are paralyzed. 5. The face is paralyzed on the right side. 6. The tongue, on protrusion, turns to the right. 7. The right leg is paralyzed. 8. The right arm is paralyzed." The third kind is one of universal powerlessness, paralysis of both sides of the body, or, as we may say, there is complete hemiplegia plus paralysis of the other side of the body—but hemiplegic inasmuch as the clot or other lesion is only one-sided, but always severe—a condition, as Dr. Jackson justly remarks, very difficult to be distinguished from opium-poisoning in some cases.

[We feel tempted to quote largely from all these papers of Dr. Jackson's, but space does not permit. Enough has been said to show that his reasoning is justified, at least to a very large extent, by known facts. It is no longer possible to sneer at this sort of teaching as transcendental. All our best clinical teaching is and must be of this kind. Nature is not to be bound down by our narrow nosologies and the cramped notions of our text-books. Yet, amid all the apparent confusion and disorder of disease there is a method, a divine cosmos, which is discoverable only by the most painstaking observation on the one hand, and a logical use of the imagination on the other. Neither singly can suffice.—*Rep.*]
—W. BATHURST WOODMAN, M.D., *in London Medical Record.*

Westphal and Bernhardt on certain hitherto unrecognized Movements of the Extremities in Hemiplegics.—A paper in No. 36 of the Berliner Klinische Wochenscrift, by M. Bernhardt, on a special kind of consentaneous muscular movements in hemiplegics, should be studied side by side with one by Dr. Westphal, in the last number of the Archiv für Psychiatrie. The observation is original, and, so far as we know, forms a new contribution to the incomplete science of nerve-action.

Westphal begins by mentioning a few of the various movements that may occur in the limbs of hemiplegics withdrawn from the influence of the will, such as lifting of the shoulder in yawning, sighing, or in voiding excrements. Besides these, it may happen that a hemiplegic, in wishing to contract certain muscles, puts in action their antagonists instead, a phenomena described some time since by Hitzig. The special peculiarity of the movement under notice is, that when the patient stretches for instance one or more fingers, or the hand of the sound extremity, the movements are executed in an identical manner on the side affected by the hemiplegia.

A brief *résumé* of one of the cases given will illustrate the subject. A man aged twenty-five, paralyzed from his youth on the left side, was admitted to the Charité. Up to his twelfth year the hemiplegic side was subject to cramps, not, however, attended with loss of consciousness. Movements of the hand and fingers of the left side were impossible, unless the corresponding movements were made with the right extremity. As soon as the patient made any movement with the sound (right) side and fingers, this was repeated on the left, and it was quite out of his power to prevent it. A most singular impression was produced by this muscular echo—if the phrase may be allowed; thus, when on one occasion he scratched an itching spot on the face with his right hand, the left was raised for the same purpose. When *passive* movements of the right hand were made, the "echo" was not observed. The muscular sensibility was entirely absent, so that he could not hold anything in his hand without keeping his eyes fixed upon it; the moment he took them off, the object dropped. This peculiarity is not invariably associated with the phenomena in question. The toes and foot of the left side partook of the same morbid "echo." What is the interpretation of these identical bilateral movements? Let it not be forgotten that Müller, of Coblentz, in 1844, noticed the tendency of muscles to act in groups of association. He remarks that practice is requisite for keeping one eye open, that many are unable to move the muscles of one side of the face only, and that the muscles of the extremities are to a less degree so implicated. In early life and old age the same thing is seen. Westphal thinks that the pathological process which attacked the hemisphere of the side opposite to the paralyzed one spared the large motor ganglia. Thus, in left hemiplegia a part of the right brain would be so affected as to be unable to convey will-impulses to the left extremities; from the left brain impulses would continue to be directed to the motor ganglia, and thence through the decussation of the pyramids to the nerves of the right side. But the excitation set up by the influence of the will in the left brain is carried by the commissural fissures to the other side, where, meeting with the still intact large ganglia, it begets a movement in the left extremities similar to that on the opposite side. The reason why, under ordinary physiological conditions, the same thing does not happen is, that by practice they are suppressed, owing to a restraining influence from the other hemisphere. When elderly persons suffer hemiplegia, the consentaneous movements are not seen, because, according to the above theory, the motor ganglia are affected, whereas, in the affections of childhood, parts only of the hemispheres are affected, as pathology has proved over and over again.

M. Bernhardt's remarks are on the case of a boy who, when eight years old, suffered from convulsions after scarlatina, and had right hemiplegia and aphasia, his stock of words consisting only of "yes" and "ah." The movements in the right shoulder and elbow were slower and made with less force than those in the left; still, to some extent, they could be executed, and, when performed, excited nothing similar on the other side. If a movement were made energetically on the left side—if, for instance, the left forefinger were bent toward the wrist—it was repeated in the right hand, and could not be prevented in spite of all the patient's wishes. If the right hand were rolled up into a "fist," the left remained quiet; but if the fingers of the right hand were moved alone, then the left fingers, especially the thumb and index, echoed the movement. Closure of the right hand caused only the slightest movement of the left index-finger.

Dorso-plantar flexion of the left foot produced an exactly corresponding action in the right foot, though nothing ensued on the reverse movement. The prick of a needle in the left hand only excited movements in the right hand. No opportunity for post-mortem verification of Westphal's theory has as yet been offered, but M. Bernhardt agrees with him in the interpretation of the facts.—T. C. Shaw, M.D., *in London Medical Record.*

The Nature of Angina Pectoris.—Dr. J. Wilson, in the Edinburgh *Medical Journal*, says:

"Regarding the general subject of angina pectoris, I venture to give my adhesion to the view now generally entertained, of its being a *neurosis.* Dr. Moinet concludes that it is a paralysis occurring in and depending upon a weakened heart, as no other theory (according to him) can account for the symptoms and history of the disease. I can not see how his theory can account in the least for such symptoms as the awful pain, intense anxiety, and indescribable terror which the sufferers from this disease so vividly describe. Trousseau, and several other authorities, consider it an *epileptiform neuralgia*, and I believe this is the nearest approach to a solution of the cause. In addition to this view, is it not probable that there may exist in many individuals such a degree of cardiac irritability or oversensitiveness as may preclude its bearing the least strain upon its regular duties, and against which it rebels by irregular and excited action, as found in palpitation, or by a convulsive contraction, as in angina pectoris? The following somewhat analogous case may serve as an illustration of this view. A short time ago, I had a female patient under my care, aged 33, unmarried, and of marked nervous temperament. She enjoyed general good health, but suffered from the following uterine phenomenon: Her menstruation was regular and normal in every respect, with this exception, that when the flow had begun, and continued for three or four hours, an intense uterine pain started up, of a kind she could barely describe, and simultaneous with its occurrence the discharge ceased. The intense pain and stoppage of discharge continued for several hours, forcing her to lie down. She said that the pain was only dulled by two or three teaspoonfuls of strong whisky. This state of matters would go on for from four to eight hours, and then almost all at once cease, when the menstrual flow was again resumed, the period terminating in its usual way. She had suffered from this for years. Now, was this not really what we might call a case of angina matricis, set up by the increased vascularity of the organ exciting its irritability? I could not resist such a conclusion. Irritability, along with ganglionic irregularity of action, might account for this case, as well as for many cases of angina pectoris, which occur where no other morbid condition is to be detected."

Causation of Typhoid.—Dr. Edward M. Snow, city registrar of Providence, says, in his October report:

"It is a common opinion, very frequently stated, and very generally accepted, that the foul emanations from sink drains, cesspools, and privy vaults are one of the most important, if not the chief cause of typhoid fever. My observation does not confirm this theory. The disease prevails much the most in the country, where, if these emanations exist, they are largely diluted by the free circulation of air, while thousands in the city who breathe the foul air from these sources constantly, are *comparatively* exempt from it.

"Again, the cases of typhoid fever in this city are as often in the comfortable and cleanly dwellings as in the poor and filthy. Of the nine decedents in September, five were of American and four of foreign parentage; of the six hundred and sixty-seven decedents from typhoid fever in seventeen years, 1856–1872, there were three hundred and seventy of American and two hundred and ninety-seven of foreign parentage.

"Again, I have known some marked instances of severe typhoid fever, evidently caused by decomposing vegetable matter, with no aid of sink drains or other nuisances. In one instance, several families in one house had typhoid fever, apparently caused by thirty bushels of rotten potatoes in the cellar.

"I think that typhoid fever is caused chiefly by the decomposition of vegetable substances, and that for this reason, it is far more prevalent in the country than in the city."

Dr. Snow's views on epidemiology are somewhat peculiar, and require more evidence than he has yet brought forward to render them acceptable. This is especially true of his advocacy of the non-contagious nature of scarlatina. — *Medical and Surgical Journal.*

Editorial.

The medical colleges of this city are enjoying a season of prosperity; the classes are unusually large, and present a much finer appearance than medical students were wont to do in years gone by. It is evident that young men who design entering the medical profession, are giving more attention to their preliminary education, and most gladly will we welcome the era when every man who shall present himself at the doors of a medical college for matriculation, will, at the same time, be required to give satisfactory evidence of having pursued a suitable preparatory course.

Further evidence that medical education is on the upward grade, is the fact that every year larger numbers of students take up and pursue a graded course of study. The times indicate that boards of trustees and faculties of medical colleges will be compelled, at no distant day, to give up the old plan of cramming and stuffing students with lectures for six or seven hours a day, five days in the week—at the same time expecting them to spend an average of one hour each evening in the dissecting-room—for a period of four or five months, giving the student no time for rest, barely an opportunity to swallow a modicum of boarding-house fare, with no time for the digestion of his hash, before he is again obliged to listen to the clarion tones of some professor rehearsing what should have been learned from text-books. Is it any wonder that young men, who are ambitious to learn all they can of medicine during those four months, at the end of that time look pale and haggard; complain of headache, mallaise, and loss of appetite; and, if they are first-course students, look forward with dread and anxiety to the year following, when they will be compelled to go through the same grind, with the additional anxiety as to passing their examination for graduation?

Where is the indefatigable Bergh and sympathizing Pye? Are not such proceedings very like cruelty to animals? To practically remedy these evils, let every practitioner who takes a student under his care, first inquire as to his preparatory education; if that is satisfactory, instruct him in his studies, according to the graded plan, and, when sufficiently advanced, send him to a college where that plan will be continued until he takes his degree. Such a course being pursued, will give the country a body of superior physicians, and will make a long stride in elevating the character of medical teaching to a position that would make it the glory of the medical profession.

We want to see such announcements as, "Four years of reputable practice are considered equivalent to any course of lectures," stricken from all college circulars. The time has been when it was a difficult matter for a young man to raise the means and be otherwise able to attend the required two courses of lectures before graduation, and many, after a pupilage with a reputable practitioner for two or three years, began the practice of medicine on their own account before taking their degree. There is no longer any excuse for such a proceeding. Medical colleges are abundant; college fees are so low as to be almost nominal; and we do not believe that a man can be called in these days a reputable practitioner for *any* length of time who is not a graduate of some medical college. The science of medicine is advancing at an unprecedented rate. The profession at large look to the college faculties as leaders in the very front rank. Almost universally they deserve that position by reason of their professional acquirements. Let them practically demonstrate that they are equal to the demand of the times in their methods of instructing students, and we do not doubt but that their honors and rewards will be increased accordingly.

"*Will it Pay to do what is Right?*—An enthusiastic public meeting was recently held in Boston, for the purpose of raising money to build a suitable building for the Medical Department of Harvard. Seventy-five thousand dollars were subscribed in the room. It was stated that the success of the new method of teaching is absolutely assured. This year, about *one hundred new* students have entered for the medical course. As the fees are two hundred dollars a year for three years, an annual income of one hundred students means an annual income of from fifty thousand to sixty thousand dollars.

"We believe Harvard has the only rapidly growing class on the continent, and it apparently soon will have, if it has not even now, the *best paying* medical class in the United States.

"It is stated that when the contemplated building is finished, the Society for Medical Improvement will deposit in it their valuable collections, to be used in teaching. The *Boston Medical and Surgical Journal* asserts that the Harvard school will soon be the great medical educational center of America. If all the other schools continue to hug the delusion that, in this country, there is no demand for, or appreciation of, other than half-educated doctors, we fear 'Ichabod' will be truly written over their door-posts, and Harvard really reign supreme, in spite of the natural disadvantage of being in a comparatively small and isolated city."—*Philadelphia Medical Times.*

Just so. The medical profession has set its seal of approval on the college that has shown that it has the moral courage to do what is right, in establishing a graded course of instruction for students under its care, and peremptorily refusing to receive students on any other conditions. Unless other colleges adopt the same or a similar course, just so surely will they witness the departure of their glory, and the prosperity of rival institutions, whose managers discern the signs of the times, and meet the demands of those who seek a higher and better mode of instruction.

The medical profession of the West need and will have colleges that will give students of medicine equal advantages in their course of study with those to be obtained at Harvard. Even now Cincinnati and other places in the West have their representatives in Harvard University. Not because those representatives desire to live three years in Boston, or wish to forsake friends at home during that time, or because they think it a good thing to largely add to the expense of their medical education, or that the faculty of Harvard College is composed of superior teachers or more eminent men than those who compose the faculties of a dozen other colleges, or that the clinical advantages in Boston are superior to those offered in other cities; but because of the plan adopted and the thoroughness of the teaching in that institution. We have no special predilection for Boston or Harvard University, but we do say all honor to the men who have had the courage to change the method of instructing medical students that has been pursued in this country for more than a century, recognizing the fact that the world moves, and, with it, the science of medicine has been making giant strides. It is a bad thing to allow the wheels of the car of progress to get into a rut; and the deeper the rut, the more difficulty there is generally experienced in getting out, and, in the act, an occasional disaster and break-down results, but that is generally caused by unsound timber, or by being badly put together. Where the parts are all sound and homogeneous, the wrench will not wreck or cause a letting-down of those aboard the car who have honestly determined to do what is right, elevating the standard of medical education, and correspondingly raising the requirements for graduation.

We notice the organization of a number of new medical societies. The omen is good, and is positive evidence that the number of men who are pressing onward to higher attainments in the profession is increasing at a rapid rate. Every county should have its society, holding regular meetings, and we urge members to consider the importance of attending those gatherings; it will do you good in every way. Report your cases, or read a paper, and get the views of neighboring practitioners, and do not dread to have the corners of your individual opinions rounded off, or the rough places made smooth. A large amount of labor that will for all time redound to the honor and glory of the medical profession has been accomplished by country practitioners, and by men who had but few opportunities for acquiring knowledge or the means to advance science. Emulate those men, and let every man consider it his duty to contribute something to the general fund of medical knowledge.

One of the necessities of the times is the establishment in each State of a State Board of Health, whose duty it would be to collect and arrange the vital statistics of the State, so that they may be made of practical use; to see that all classes of people are so far as possible living under the very best sanitary conditions; that factories do not employ young children for too many hours in the day, or at too severe labor; that boards of education and teachers in the schools do not tax the mental powers of the children to too great an extent; that the mines shall be kept in the best possible hygienic condition; supervising the drainage of lands and making drainage compulsory where the inhabitants suffer in health in consequence of neglect of this important sanitary measure; requiring the proper construction of school and other public buildings, so that they may be properly heated, ventilated, and admit a sufficiency of sunlight; that the food and water supply of the people are the best possible, and that they are in a proper condition for use. Many of the jails, alms-houses, and infirmaries need the oversight of such a board.

In fact, everything that pertains to state medicine would claim its attention. No one will question that it is of the very greatest importance to all the interests of the State, that the largest possible number of her citizens shall live in the enjoyment of good physical health, and one of the best means of bringing about this desirable result is the establishment in each State of a State Board of Health. Such a board will find in any State a superabundance of work to perform. Will members of the medical profession take pains to inform their representative in the legislature of the importance of the establishment of a State Board of Health?

This number of the CINCINNATI LANCET AND OBSERVER closes the volume for 1874, and at the same time ends the first year of our labor as the editor of a medical journal; and we take this occasion to express our gratitude, first to our corps of contributors, who have certainly done their work in a manner both creditable to themselves and to this journal, and next, to those who have promptly taken measures to keep their names on the subscription list.

There are a few delinquents, whose names have been suffered to remain on the list to this number. To such we must say, your credit in this office can only be kept at par by an immediate remittance of the amount you owe the journal.

The new postal law goes into effect with our next number, which will add materially to our expenses. We propose to give our subscribers the benefit of that reduction in the cost of the journal to them, conditioned on the prompt prepayment of subscriptions.

We expect to continue to publish the LANCET AND OBSERVER as an independent medical journal, subservient to the interests of no clique or party; advocating a higher and better method of educating young men for the medical profession, with a correspondingly high standard of qualifications for graduation; supporting any movement that has for its object the promotion of medical science; not hesitating to criticise those who violate rules of honorable professional conduct; keeping our readers posted as to the medical news of the day; giving full hospital reports, including clinical lectures by members of the staff; reports of the proceedings of various medical societies, which will be found to be a very reliable mirror, reflecting the status of medical science and its progress. Original contributions, that possess real merit, will continue to occupy a prominent place.

Thanking very many of our subscribers for expressions of good will and encouragement, we wish you all a very merry Christmas. The friends of the journal have a splendid opportunity to make glad the heart of the editor by sending him a Christmas gift, in the shape of one or more new subscribers to the LANCET AND OBSERVER.

Subscribers who wish to take advantage of club rates with other journals, medical, scientific, or literary, will find it to their advantage to notify us immediately.

The St. Nicholas is just the magazine for little people. In point of merit it has no rival. With the LANCET AND OBSERVER, $5 50.

Godey's Ladies' Book holds its own as a favorite magazine, keeping up to the times with its fashion plates. With the LANCET AND OBSERVER, $5.50.

The Atlantic Monthly continues to furnish its readers with much of the choicest literature published. With the LANCET AND OBSERVER, $6.25.

The Popular Science Monthly is deservedly the most popular scientific magazine ever published. With the LANCET AND OBSERVER, $6.25.

Scribner's Magazine, edited by Dr. J. G. Holland, is pre-eminently a family magazine, interesting alike to old and young. With the LANCET AND OBSERVER, $6.25.

The London Lancet, and LANCET AND OBSERVER, $7.00.

Braithwaite's Retrospect, and LANCET AND OBSERVER, $5.00.

Half-Yearly Compendium, and LANCET AND OBSERVER, $5.00.

Sponge-Tents.—Sponge-tents are far safer than those made of sea-tangle, and it has long been one of my objects to remove the very offensive smell after their use. I have tried charging them with various disinfectants, but without any result, until last week I made an experiment with oil of cloves, and I have found that a tent charged with five per cent. solution of oil of cloves will remain in the uterus twenty-four hours without becoming offensive in the slightest degree. There can be no doubt that such a tent is far safer than those ordinarily in use, and it is certainly much more agreeable to the operator.—*Mr. Lawson Tait.*

Reviews and Notices.

Therapeutics and Materia Medica. A systematic treatise on the action and uses of medicinal agents, including their description and history. By ALFRED STILLE, M. D. Fourth edition, thoroughly revised and enlarged. In two volumes. Philadelphia: Henry C. Lea, Publisher. For sale by Robert Clarke & Co. Price $12.00.

There are a few medical works which it is necessary for every practitioner of medicine to have in his library, and none more necessary than a complete and reliable work on materia medica. This edition of Professor Stille's great work better answers the requirements of the medical profession than any other with which we are acquainted. For more than two years this work has been out of print. Much of the matter has been entirely rewritten, and several new articles introduced, adding about two hundred and fifty pages to the size of the work. The author's original classification of medicines has been retained. He says: "It is a mischievous error to seek to deduce the therapeutical uses of medicines from their physiological action. Continued study, observation, and reflection have tended to strengthen his convictions upon this subject, and to confirm him in the faith that clinical experience is the only true and safe test of the virtues of medicines."

We regret to find that some important new remedies are omitted, viz: guarana, eucalyptus globulus, etc. Notwithstanding the fact that the author's views, as to the best method of acquiring a knowledge of the therapeutical effects of medicines, do not coincide with the opinions of many observers in the profession, they are worthy of the most profound respect and consideration. The work will undoubtedly retain its place as a standard, both for the use of students, and for reading and reference by the practitioner, for many years.

The Breath and the Diseases which give it a Fetid Odor; with Directions for Treatment. By JOSEPH W. HOWE, M.D. D. Appleton & Co., Publishers.

This little work is on a subject that has heretofore been almost entirely ignored by medical authors; yet its importance is well known by every practitioner, as an offensive breath is liable to occur at any period of life, and is a prominent symptom of many morbid conditions. The affection is of importance, also, from the fact that it is a constant source of annoyance to those who are compelled to associate with the unfortunate patient. The author gives a succinct account of the diseased conditions in which a fetid breath is an important symptom, with his method of treatment. We consider the work a real addition to medical literature. It is published in the very best style of the "art preservative."

For sale by Robert Clarke & Co. Price $1.50.

Transactions of the American Medical Association. Vol. 25, 1874.

This volume of Transactions compares very favorably with those issued in former years. The papers prepared and read before the different sections portray the advance in science made by the medical profession in the United Sates during the year ending with the annual meeting.

Clinical Lectures on various important Diseases. Being a Collection of the Clinical Lectures delivered in the Medical Wards of Mercy Hospital, Chicago. By NATHAN S. DAVIS, A.M., M.D. Edited by FRANK H. DAVIS, M.D. Second edition. Henry C. Lea, Publisher.

This volume consists of twenty very practical clinical lectures delivered before the students in Mercy Hospital. They are just such lectures as students should listen to at every-day hospital clinics—simple in language, plain in statement, and quite up to the times in which they were delivered. They are the more valuable because they are on diseases which the practitioner most frequently meets in his daily rounds among the sick.

For sale by Robert Clarke & Co.

Croup in its Relations to Tracheotomy. By J. SOLIS COHEN, M.D. Philadelphia: Lindsay & Blakiston, Publishers.

We can not better express the value of this brochure than by stating that, after it was read before the Philadelphia County Medical Society, it was referred to the State Medical Society, and by the latter society was ordered to be published in their Transactions for the current year. It is based on a careful study of more than five thousand cases of tracheotomy in croup, performed in various parts of the world.

For sale by Robert Clarke & Co. Price $1.00.

Clinical Lectures on the Nervous System. By W. A. HAMMOND, M. D., Prof., etc. Reported, edited, and the history of the cases prepared, with notes, by T. M. B. Cross, M. D., assistant to Dr. Hammond, etc. New York: D. Appleton & Co., 1874.

If this work is what it purports to be, as certified by Dr. Cross, viz., a report of cases under Dr. Hammond's charge, with his clinical remarks, we have no hesitation in saying that it is a better book than his former one on the "Diseases of the Nervous System," published four years since. That work was a creditable summary of the labors of many hard-working and honest workers in original research in the diseases of the nervous system.

If Dr. H. would employ his time and talents as an avowed compiler, he would render a grateful service to his profession, for he has respectable abilities in this line; but his doleful ambition for distinction in original research, at any cost, and the egotistic display of his practice, and the strong marks of invention, and not observation, that mark his writings, discredits them to a certain extent in the eyes of conscientious men. Dr. H. is a diligent man in rummaging that literature of our profession which has been so prolific in recent years, in discoveries in the physiology and pathology of the nervous system; and these, when interwoven in the description of his cases, in his easy way, make his works rather interesting reading. The nervous system he assumes as his specialty, and handles the subject with the air of one who is devoting his life to long, weary, patient research into its mysteries. Not a bit of it! He has seized upon the honest work of the real laborers in this department, and makes of them the warp and woof of his voluminous writings. The profession is growing weary of this sort of book-making, and are beginning to understand pretty well that it is a method of advertising by specialists, and with a floridness that is akin to charlatanism. It smacks of the method of the lung-doctors who filled the secular journals awhile ago with their magniloquent writings on diseases of the chest. So far as these publications honestly set forth the conclusions of true workers they are commendable enough; but, because the great object of the writers is to get notoriety and make of the labors of others a substratum for cases and statistics, we turn from them with disgust. They do not advance nor even contribute to medical knowledge.

It is time the medical press had raised its voice against this class of authors. If they wish to bring together extant knowledge in any department as a compilation, let them do so; but we protest against this use of the labors of others as a mere foil for their egotistic advertising. This form of advertising is becoming more and more prominent, and correspondingly injurious to the general practitioner.

We reproduce a part of a criticism on a specialist's book, from a contemporary (who evidently tells what he knows), as germain to our view:

"We have too many books of this kind; books written simply to make known the author by advertising a specialty. The mode of doing these things is such that practical knowledge is not at all necessary. The author surrounds himself with all of the attainable literature upon the subject in hand and proceeds to compile; but the benefits accruing from these publications are generally confined to the authors themselves by way of advertisement. These publications add to the bulk of medical chaff," etc.

In the book now before us, we find a carefully prepared series of cases, illustrating the symptoms and pathological relations of a most interesting class of nervous diseases, which will well repay a careful reading. It is of very little consequence to us whether these were "subjective" or "objective" cases; they will be found in all of their important details (of course) to harmonize with the phenomena in this class of affections, as seen by the best and most conscientious writers. The recent publications of Dr. H. in the secular press of his original researches on hydrophobia, which have made him a laughing stock of the medical world, are a fair exhibition of his abilities in that line. The Hammondism of this book consists in the remarkable perfection of diagnosis; his judgments and decisions are always infallible, and his opinions are expressed with an assumption that he is always correct, and that no mere man will dare to differ with him.

The Ladies' Repository. Published by the Methodist Book Concern, of this city.

This fine magazine maintains a reputation, established for many years, of being a literary magazine, full of wholesome reading, designed especially for the family.

The Physician's Visiting List. Lindsay & Blakiston, Publishers. For sale by Robert Clarke & Co.

This work is so well known and popular with the profession as to need no special commendation on our part.

Prescott's Works. Philip the Second. Vols. 1 and 2. The series are on sale by Robert Clarke & Co., at $2.25 per vol.

The consecutive volumes of the beautiful new edition of Prescott, now being issued by Lippincott & Co., appear with commendable regularity, the lovers of Prescott having just about time between the appearance of each volume to enjoy its reading with comfortable leisure. We have received the first and second volumes of the History of Philip the Second, King of Spain, one more volume to appear, completing the set. While we admire the remarkable attractions of all Prescott's works, yet there is a beauty and romance in the life and times related in the history of King Philip that, perhaps, surpasses the other works. To remind the reader of the scope of this history, we quote a paragraph from the preface: "The history of Philip the Second is the history of Europe during the latter half of the sixteenth century. It covers the period when the doctrines of the Reformation were agitating the minds of men in so fearful a manner as to shake the foundations of the Romish hierarchy in the fierce contest which divided Christendom." As an earnest adherent and friend of the ancient church, King Philip was a conspicuous figure in the events of Europe during these times. The illustrations are King Philip, Margaret of Parma, Don Carlos (Prince of the Asturias), Don Fernando Alvans, with various maps.

The Function of the Uvula.—Dr. Horace Dobell writes to the British Medical Journal of September 5, 1874:

"Looking, to-day, into the pharynx of a patient suffering from a severe nasal catarrh, I saw the watery secretions from the back of the nose pouring down in a continuous stream from the tip of the uvula onto the dorsum of the tongue. It was evident that they were collected to this point from all the surrounding parts, and that the uvula acted as a conduit to bring them to the front of the epiglottis, whence they might be safely carried down the throat by repeated acts of deglutition; whereas, had it not been for the uvula, they would be liable to drip behind the epiglottis, and thus cause constant discomfort by getting into the larynx. This very simple but important function of the uvula has not, so far as I am aware, been noticed before, notwithstanding all that has been written about this odd little organ."

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